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FARM FINANCIAL RECORDS

Prepared by the Department of Agricultural Economics
of the University of Illinois

Summary of Annual Farm Business Reports of 2,917 Illinois Farms for the Year 1945

1945 Farm Business Reports

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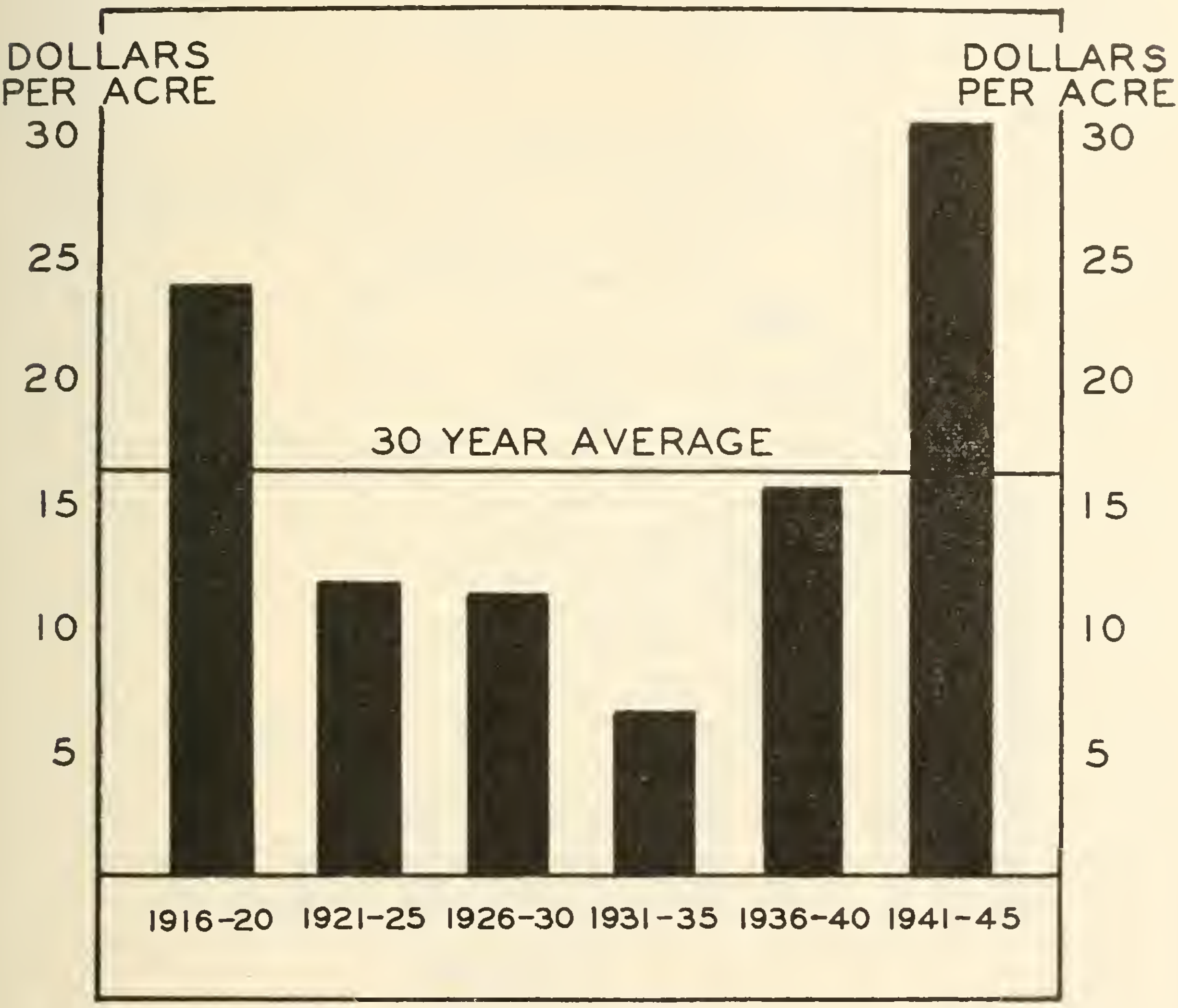
ILLINOIS FARM ECONOMICS

EXTENSION SERVICE IN AGRICULTURE AND HOME ECONOMICS
College of Agriculture · University of Illinois · Department of Agricultural Economics

G. L. Jordan, Editor July-August, 1946 Numbers 134 and 135

Summary of Annual Farm Business Reports of 2,917 Illinois Farms For the Year 1945



Net Earnings per Acre, East Central Illinois Farms; Average per Year by Five Year Periods, 1916-1945. For further explanation, see Figure 2.

Articles in *Illinois Farm Economics* are based largely upon findings of the Agricultural Experiment Station.

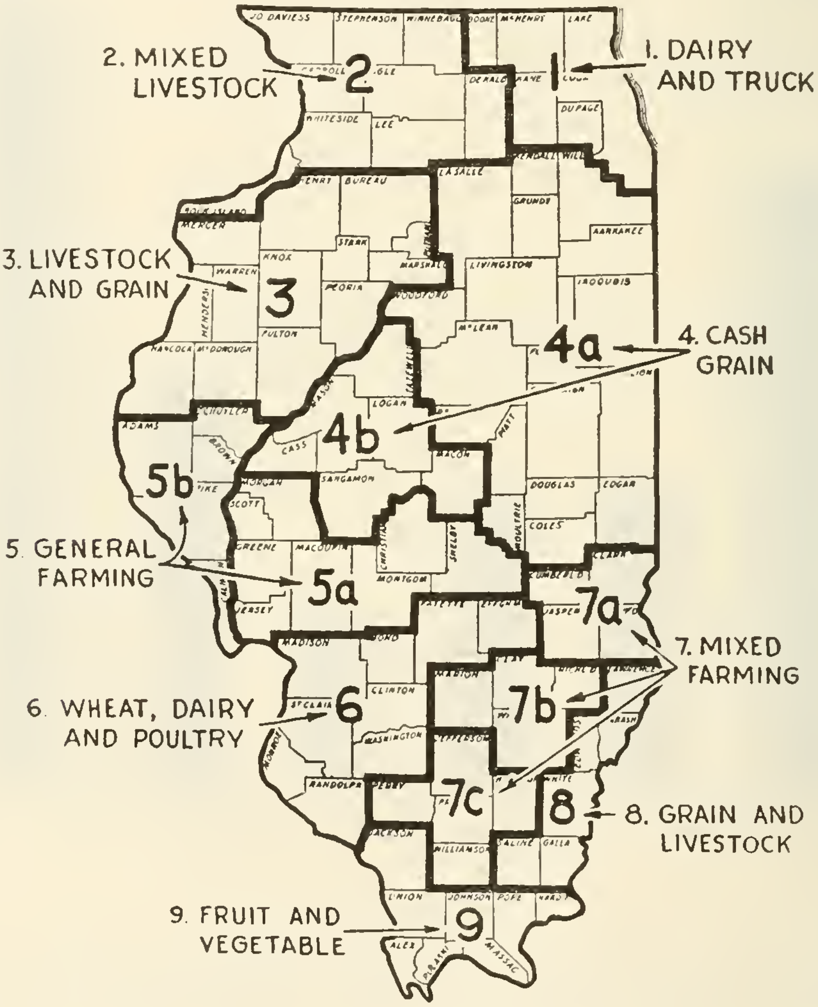
FOREWORD

This is the fifth annual summary of business reports of farms of account cooperators published in Illinois Farm Economics. Similar reports for previous years beginning 1924 were published in the annual reports of the Agricultural Experiment Station.

This issue of Illinois Farm Economics reports an analysis of 2,917 Illinois farm records for 1945. It includes comparisons of earnings for 1945 and previous years and of earnings during World War II and World War I.

The information in this report will be of special value to extension workers, farm managers, farm appraisers, and G.I. instructors; also to representatives of farm credit institutions, commercial organizations, and various other groups that work with farm people.

L. J. Norton



THE NINE MAJOR TYPE-OF-FARMING AREAS IN ILLINOIS

SUMMARY OF FARM BUSINESS REPORTS OF 2,917 FARMS IN ILLINOIS FOR 1945[1]

J. B. Cunningham, M. L. Mosher, J. E. Wills, E. N. Searls, and A. G. Mueller

Net cash income an acre. The average net cash income an acre for accounting farms was slightly lower in 1945 than in 1944. The earning figure was $15.35 for 1945, compared with $15.64 for 1944, $17.16 for 1943, $1.47 for 1932, and an average of $5.30 for 1934 to 1939 when earnings were practically the same in each year (Figure 1).

The average net cash income an acre for Illinois accounting farms from 1931 to 1945 was as follows:

1931	$2.69	1936	$7.40	1941	$ 9.91
1932	1.47	1937	5.33	1942	14.99
1933	3.00	1938	5.25	1943	17.16
1934	5.40	1939	5.40	1944	15.64
1935	5.14	1940	6.82	1945	15.35

The net cash income an acre was computed by subtracting the value of unpaid labor from the cash balance for the year and by dividing that difference by the number of acres in the farm. In order to calculate the

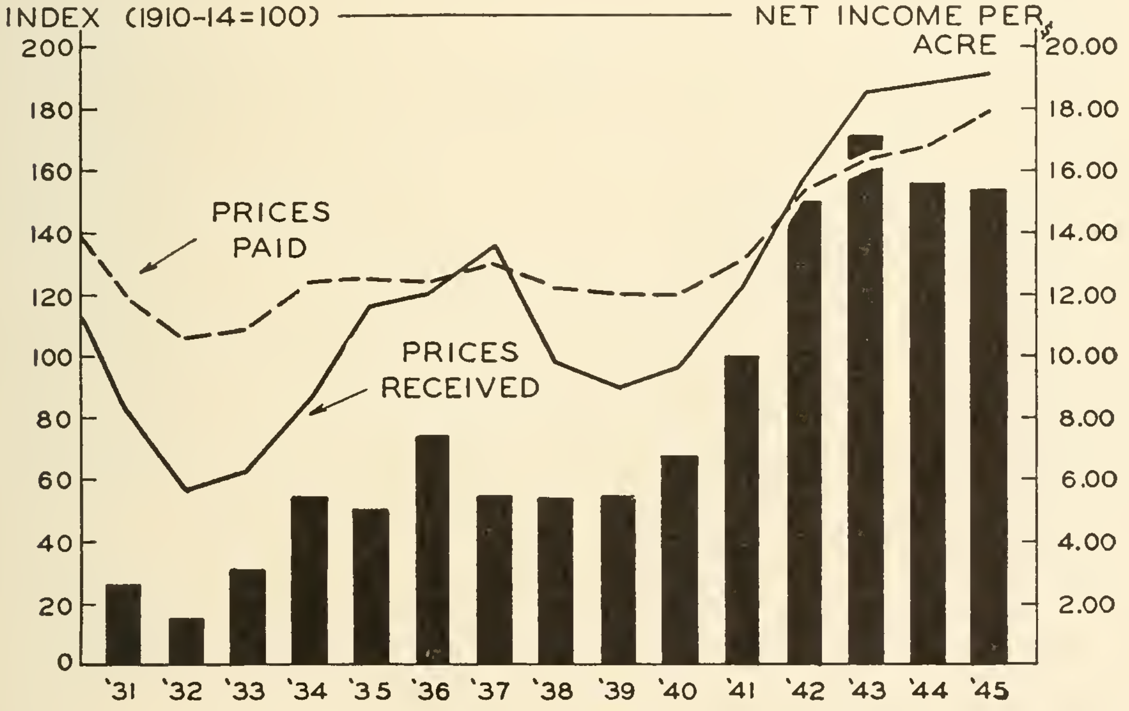


Fig. 1.—Average Net Cash Income an Acre (Unpaid Labor Deducted) on Illinois Accounting Farms, Prices Paid by Farmers in the United States, and Prices Received by Illinois Farmers, 1931-1945

state averages, farming-type area averages were weighted by the acres of land in farms (census) in each area.

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[1] Averages in this report include 1,657 Farm Bureau Farm Management Service records and 1,260 State-Wide Extension project records, unless indicated otherwise.

These returns do not include the inventory changes or the money value of food, fuel, and other items of living, obtained from the farm. The net cash income an acre is one of the best measures for comparing incomes of groups of farms over a period of years, or for contrasting the level of income for different type-of-farming areas. During any period of years, earnings fluctuate more widely from year to year when inventory changes are included, since there are usually inventory losses when prices are declining and inventory increases when prices are rising.

Effect of large production and high prices on earnings. In 1945 the ratio of prices received by Illinois farmers to prices paid for supplies was 112 percent of the 1910-1914 ratio, and in 1937, it was 102 percent or 10 points lower.

Why, then, should the net cash income an acre be so much larger in 1945 than in 1937? The answer is simply that the war caused a high level of both domestic and foreign demand in 1945 and farmers had a large supply of salable products. Such a combination of circumstances is unusual. Therefore, the farmer should be cautious about making long-time commitments based on 1945 net earnings.

We have had years of low volume of sales, as 1937, when prices were high but there was little to sell, and we have had years like 1939 when a large volume of products was sold at relatively low prices. The effect of both of these combinations was a fairly low level of farm incomes. In 1945 a large volume of products was sold at high prices.

Accounting farms represent better than average conditions. The data in this report represent better than average farm conditions because the accounting farms are larger than average, have crop yields above average, and on the whole are operated with greater than average efficiency. Differences between all farms and the accounting farms in 1945 are shown in the following table:

Item	All farms	Accounting farms
Average size, acres	153	255
Corn yield an acre, bushels	45.2	52.2
Average gross cash income a farm	$9,664[a, b]	$13,376

[a] Source: Illinois Cooperative Crop Reporting Service.
[b] All farms adjusted to the same size as the accounting farms.

Earnings compared for World War I and II. On the front cover and in Figure 2 earnings on an inventory basis are shown for accounting

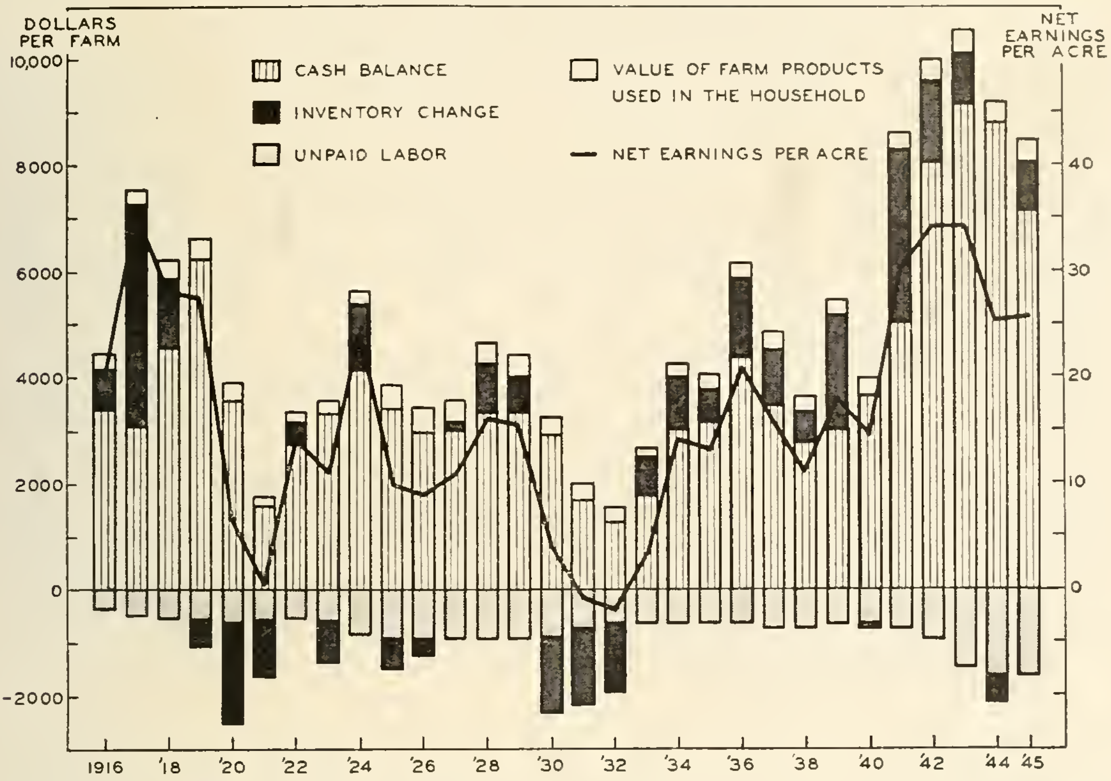

FIG. 2.—CASH BALANCE, INVENTORY CHANGE, UNPAID LABOR, AND VALUE OF FARM PRODUCTS USED IN THE HOUSEHOLD PER FARM; NET EARNINGS PER ACRE; ACCOUNTING FARMS IN EAST CENTRAL ILLINOIS, 1916-1945.

farms in east-central Illinois. This is the only area in the state with adequate records for the 30 years which include the two World War periods. Earnings in this area are indicative of those for the state.

Included in the net earnings are: (1) cash balance, (2) inventory change, (3) value of farm products used in the household, and (4) value of unpaid labor (Figure 2). The items above the line are additions; those below the line are deductions. For example, in 1940 the value of unpaid labor and the decrease in inventory totaling $718, were subtracted from the sum of the cash balance and the value of farm products used in the household totaling $3,943. Thus the net farm income was $3,225 or $12.13 an acre. The annual net income per acre is shown by the black line.

High farm earnings continued longer and reached greater heights during World War II than during World War I. Furthermore, earnings were more fully realized in cash, as indicated by higher cash balances during the last war than during World War I. More available cash resulted in the retirement of many farm mortgages and in the accumulation of cash reserves, which may foreshadow inflationary dangers — especially in the land market.

Affecting earnings was the 32 percent increase in average size of farm, from 200 acres in 1916-1920 to 265 acres in 1941-1945. The additional

TABLE 1.—SELECTED ITEMS OF INCOME AND EXPENSE ON ILLINOIS ACCOUNTING FARMS, 1939-1945[a]

Item	1939	1940	1941	1942	1943	1944	1945
Acres per farm	237	242	239	239	239	251	255
Cash income per farm	$5 920	$6 334	$8 002	$10 865	$12 113	$12 654	$13 376
Cash expenditures per farm	4 001	4 094	4 983	6 470	6 905	7 375	8 008
Cash balance	$1 919	$2 240	$3 019	$ 4 395	$ 5 208	$ 5 279	$ 5 368
Inventory increase	1 117	541	2 082	1 562	769	−152	190
Farm products used in household	254	243	284	342	382	395	413
Cash balance plus inventory increase and farm products used in household	$3 290	$3 024	$5 385	$ 6 299	$ 6 359	$ 5 522	$ 5 971
Unpaid labor	696	691	769	1 011	1 367	1 623	1 696
Net farm earnings	$2,584	$2,333	$4,616	$ 5,288	$ 4,992	$ 3,899	$ 4,275
Gross receipts per acre[b]	$20.96	$20.16	$31.26	$ 36.87	$ 38.36	$ 38.56	$ 41.44
Total expense per acre[c]	10.26	10.47	11.63	14.82	17.35	22.67	24.61
Net receipts per acre[b]	$10.70	$ 9.69	$19.63	22.05	$ 21.01	$ 15.89	$ 16.83
Net income per acre (cash basis)[d]	5.40	6.82	9.91	14.99	17.16	15.64	15.35

[a] These state averages were obtained by weighting area averages. The last item, net receipts per acre (cash basis), was weighted by the acres of land in farms in each area: all other items were weighted by the number of census farms in each area.

[b] Receipts include inventory changes and farm products used in household.

[c] Total expense includes unpaid labor charge.

[d] Cash balance less unpaid labor.

acres, while not necessarily increasing the net income per acre, added volume to the business and resulted in larger incomes per farm during World War II than during World War I. The change in size was due primarily to the introduction of improved machinery, which allowed the same amount of labor to handle more acres.

During the 30 years, 1916-1945, inventories increased in 19 years and decreased in 11; all but two of the decreases were between 1919 and 1932, following World War I. Increased inventories since 1933 were caused by larger production and higher prices. A reversal of the trends in these two items would immediately be reflected in lower farm earnings.

Unpaid labor of the operator and other members of his family increased in value from $360 in 1916 to $951 in 1927; decreased to $664 in 1940; and then increased to $1,658 in 1945. During these years the amount of unpaid labor varied little but the value varied with changes in going rates for hired labor.

The value of farm products used in the household, an item of great importance in less commercialized areas, varied from year to year depending principally on price changes, averaging $322. In 1945, it averaged $413.

Value of farm products used in the household. In the area farm business reports which have been published separately, and in the printed tables at the back of this report, the farm value of meat, milk, eggs, and other farm products used in the household was included as a source of income. These products have also been included in comparing the 1939-1945 records in Table 1. The average values per farm of farm products

TABLE 2.—CASH FARM BUSINESS EXPENDITURES ON ILLINOIS ACCOUNTING FARMS, 1939-1945

Nature of expenditures[a]	Average per farm							Percent 1945 is of 1944
	1939	1940	1941	1942	1943	1944	1945	
Land improvements, total	$368	$ 368	$ 389	$ 222	$ 248	$ 357	$ 433	121
Capital purchases				(158)	(168)	(240)	(276)	115
Operating expense				(64)	(80)	(117)	(157)	134
Farm buildings, total				310	306	318	352	111
Capital purchases				(208)	(204)	(205)	(216)	105
Operating expense				(102)	(102)	(113)	(136)	120
Machinery and equipment, total	961	1 019	1 335	1 430	1 366	1 703	1 968	116
Capital purchases				(648)	(469)	(666)	(737)	111
Operating expense				(782)	(897)	(1 037)	(1 231)	119
Feed and grain	634	647	947	1 461	1 866	1 751	1 803	103
Crop and sealing expense	144	152	159	220	268	307	343	112
Hired labor	371	369	432	548	621	648	692	107
Taxes	272	287	294	302	311	327	351	107
Livestock and miscellaneous	1 251	1 252	1 427	1 977	1 919	1 964	2 066	105
Total cash expenses	$4 001	$4 094	$4 983	$6 470	$6 905	$7 375	$8 008	109

[a] Total for each item of expenditure was determined by weighting the averages of each area by the number of census farms in the area.

used in the household has shown a steady increase since 1940, reflecting increases in prices.

From the records which are used to analyze the farm business, rental value of the farm residence, as well as depreciation and maintenance expenses of the residence are omitted. Thus the accounting for farm buildings agrees with income tax rulings.

Cash income per farm. The average cash income and cash expenditures per farm were larger in 1945 than in any year in the history of farm accounting in Illinois.

The average cash balance of $5,368 for 1945 was over five times as large as the average cash balance of $968 for 1932, the low-income year of the depression (Table 1). The average cash balance for 1945 was $89 a farm larger than in 1944, but income tax payments made in 1945 must be deducted from this sum in order to calculate the increase available for farm family living and savings.

Cash farm business expenditures. Illinois accounting farmers spent more money to run their farms in 1945 than in any year of record and probably established an all-time high because farms are larger now and farmers purchase a higher percentage of the materials used to operate their farms. Expenditures averaged 8 per cent larger in 1945 than in 1944 and 102 percent larger in 1945 than in 1939 (Table 2). More money was spent in 1945 than in 1944 for all items. The expenditures include amounts spent for capital and operating items. There were large increases in operating expenses for land improvements, farm buildings, and machinery and equipment in 1945 in comparison with 1944 (Table 2).

The average expenditure per farm of $8,008 in 1945 may be contrasted with an average expenditure of $1,494 per farm in 1933, the low point for expenditures in the depression period—an increase of 436 percent. This increase reflects changes in the price level, in quantities purchased, and in the average size of farm.

Inventory increases. Inventories increased each year since the depression year of 1932 except in 1944; these increases have ranged from $428 per farm in 1938 to $2,082 per farm in 1941 (Table 1). Since 1932, the total net inventory increase per farm has averaged $9,817. The increase in 1945 was $190.

An inventory increase indicates that the combined value of livestock, grain, improvements, and machinery was larger at the end of the year than at the beginning. The ending inventory of each year is for the same farms as the beginning inventory, but the farms included in the averages are not exactly the same in each year because some old cooperators are dropped each year and new ones are added.[1]

The inventory increases since 1932 reflect the increase in prices for farm products, heavy investments in improvements and machinery, and an accumulation of grain and livestock. Enough money has been spent for machinery and improvements so that the value per farm on January 1, 1945 was 110 percent larger for machinery and 41 percent larger for improvements than in 1934. For each year since 1932, except 1944, earnings have been higher when inventory changes have been included. On the other hand, inventory losses averaged $866 a year for the 3 years, 1930-1932, and $152 for 1944. The inventory gain in 1945 was due to the increases in livestock, machinery, and land improvements. Inventories of feed and grain and buildings decreased. The cash basis more nearly reflects the ability of a farmer to pay his interest, to buy the things that his family needs, and to add to savings than when inventory changes are included. Inventory changes must be included, however, to find the net position of the farm business for the year.

Variations in earnings from farm to farm. Earnings for the farms included in each area vary widely. Much of the farm-to-farm variation is due to the managerial ability of the operators and to the manner in which the farms are organized and operated. The wide variation in rate earned on investment, net earnings per farm, and labor and management earnings indicates the opportunities which some farmers have for improving their incomes. These variations are largely due to factors over which the operator has some control.

Prices of important farm products, war years compared. The average annual farm prices for most of the important farm products in Illi-

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[1] More than 1,000 of the cooperators have kept records for ten or more years.

Table 3.—Prices of Principal Illinois Farm Products: December 15, 1944 and 1945, and Calendar Year Averages 1918 and 1945

	December 15, 1944	Farm prices 1945	Calendar year 1918	Average prices 1945
Corn, bu.	$ 1.04	$ 1.06	$ 1.31	$ 1.07
Wheat, bu.	1.57	1.64	2.07	1.58
Oats, bu.	.70	.73	.73	.68
Barley, bu.	1.06	1.13	1.27	1.09
Soybeans, bu.	2.05	2.10	2.12[a]	2.09
Apples, bu.	3.10	4.00	1.63	2.99
Red cloverseed, bu.	18.70	18.40	16.70	18.65
Hay, ton	18.40	16.60	20.67	17.72
Horses, head	70.00	56.00	138.00	62.00
Milk cows, head	119.00	128.00	91.20	125.50
Beef cattle, cwt.	10.90	12.00	11.02	13.12
Hogs, cwt.	13.70	14.30	16.53	14.25
Lambs, cwt.	13.20	13.30	14.43	13.77
Chickens, lb.	.24	.23	.21	.25
Milk, whole, cwt.	3.15	3.05	2.88	2.95
Butterfat, lb.	.50	.48	.36[b]	.48
Eggs, doz.	.39	.43	.39	.35
Wool, lb.	.43	.45	.61	.44

[a] 1924 av. [b] 1921 av.

nois were lower during the last year of World War II than during the last year of World War I. Exceptions were apples, red cloverseed, milk cows, beef cattle, chickens, milk, and butterfat. Farm prices in 1945 were supplemented by subsidy payments to farmers for milk, butterfat, and certain classes of beef cattle.

Although most farm prices were under OPA regulations in 1945, the trend in prices was slightly upward during the year as indicated by higher prices for most farm products at the end of the year than at the beginning.

The index of all Illinois farm prices in 1945 was 4 percent higher than in 1944. The percentage changes for the various groups were as follows: chickens and eggs, +9 percent; meat animals, +8 percent; dairy products, −1; feed grain and hay, −2; and fruit, −10 percent.

Shifting ratios between the prices of livestock and livestock products and feeds are responsible for a large part of the variation in earnings among different farming-type areas in Illinois. The relationships between the prices of livestock and livestock products and feeds indicate an unfavorable situation during most of 1945 for livestock producers.

Variation in supplies. Prices of farm products at inventory time influence farm earnings because all feed, grain, livestock, and other farm property are valued at the beginning and at the end of the year. Consequently, the influence is greatest when large stocks are on hand at inventory time and when prices at that time vary widely from those during the year when purchases and sales would be made in the course of operations.

At the end of each year from the drouth of 1936 through 1942, the inventories of the four major grain crops (corn, oats, wheat, and soy-

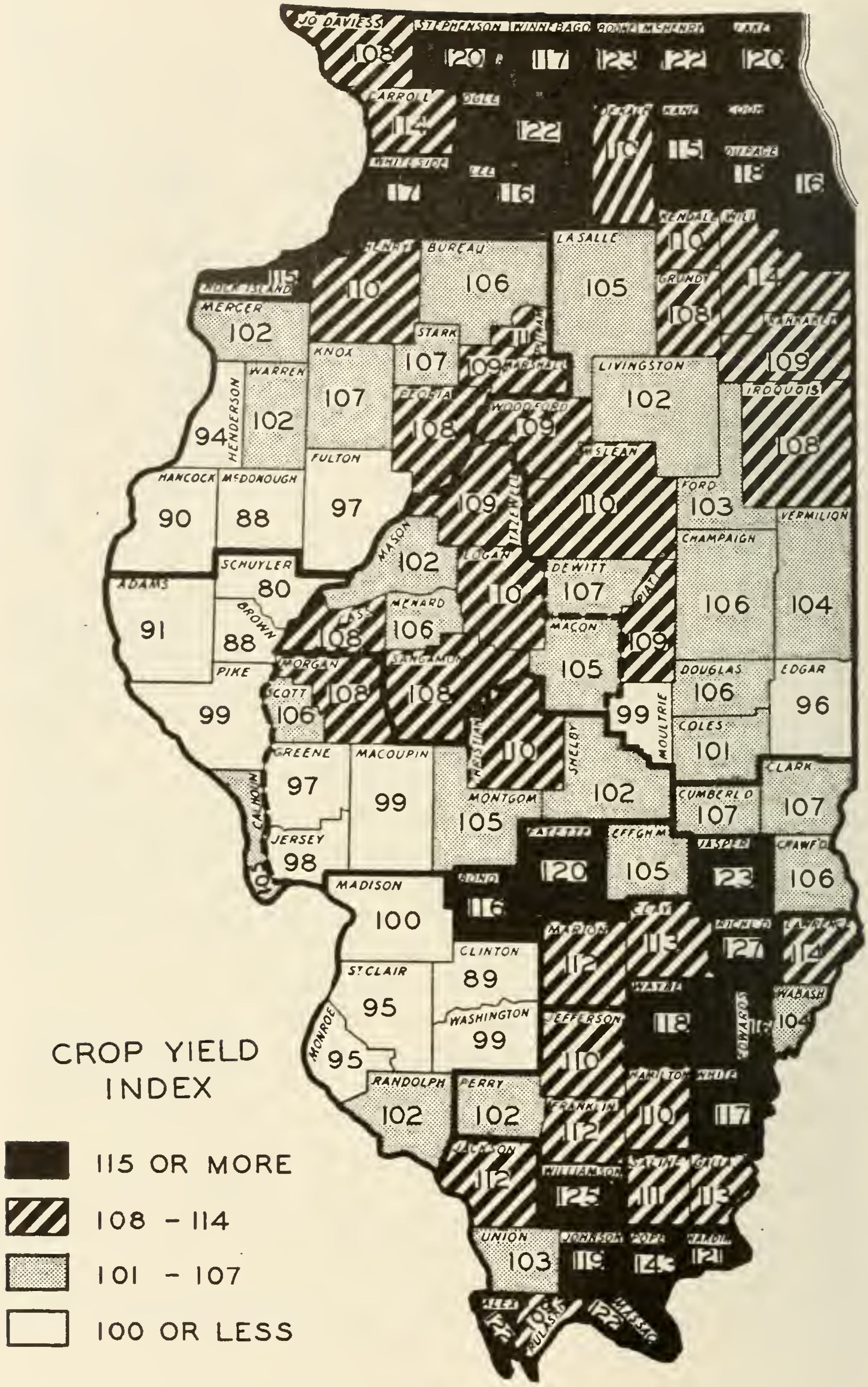

Fig. 3.—Crop Yields for 1945 Compared With 10-Year (1935-1944) Average Yields for the Same County. The Indexes Are Based on County Yields of Corn, Oats, Wheat, and Soybeans (Data From Illinois Cooperative Crop Reporting Service)

beans) on Illinois farms were larger at the end of the year than at the beginning. With less favorable crop production conditions and larger demands for grain from increased numbers of livestock and for industrial uses, this upward trend as reflected by the accounting farms was broken in 1943.

Farm supplies of feed and grain were smaller at the end of 1945 than at the beginning; livestock numbers also declined somewhat but the inventory value increased slightly because of higher prices for dairy cattle, beef cattle, and hogs.

Crop yields in Illinois. The year 1945 was the ninth consecutive year of high crop yields in Illinois. The weighted average yield of corn, oats, wheat, and soybeans for 1945 was 107 percent of the 10-year average 1935-1944 (Figure 3).

In 1945 yields of the four principal grain crops as expressed in percentages of 1935-1944 averages, follow: corn, 103; oats, 128; soybeans, 97, and wheat, 103. Corn yields were higher than the previous 10-year average in 66 counties; oats in 74 counties; wheat in 81 counties; and soybeans in 71 counties.

Although more than two-thirds of the counties exceeded their 10-year average, 1935-1944, yield of soybeans, the average for the state was only 97 percent. This situation was due to yields below 100 percent for counties with large acreages, such as Champaign, Moultrie, Macon, DeWitt, Logan, and Sangamon Counties.

Of the 18 counties with crop yields of 100 or less, all but two were in western and southwestern Illinois. In these areas, a wet spring followed by a dry summer greatly reduced the yields of all the principal grain crops.

In general, the highest yield indexes were in northern Illinois where corn and oats are the principal crops. Growing conditions in that part of the state were particularly favorable, but an early frost resulted in much soft corn.

In southeastern Illinois several counties also had high crop yield indexes. The conditions in that area were not as favorable as the map indicates because the yields for 1945 were compared with average yields for a period of years (1935-1944) when there were several near failures in that part of the state; also because farmers in 1945 were unable to plant their normal acreage of crops.

Variations in net cash income an acre. The average net cash income per acre for Illinois accounting farms in 1945 varied from $2.18 in Area 7 to $21.47 in Area 3 (Table 4).

Net cash incomes were lower in 1945 than in 1944 in areas 4, 5, 7 and 8 and higher in the other areas. In Area 3 the increase from 1944 to 1945

TABLE 4.—NET INCOME AN ACRE (CASH BASIS) FOR ILLINOIS ACCOUNTING FARMS BY FARMING-TYPE AREAS FOR THE PERIODS 1925-1929, 1930-1934, 1935-1939, AND 1940-1944 AND FOR THE YEARS 1943, 1944, 1945[a]

Farming-type areas	1925-1929	1930-1934	1935-1939	1940-1944	1943	1944	1945
Area 1, Chicago Dairy	$9.59	$5.25	$5.61	$13.72	$15.40	$19.80	$20.44
Area 2, Northwestern Mixed Livestock	7.94	4.92	7.23	15.96	22.84	19.34	20.74
Area 3, Western Livestock and Grain	9.05	4.86	6.99	15.33	19.42	17.10	21.47
Area 4, East-Central Cash Grain	8.91	4.46	7.15	17.09	22.63	20.29	18.98
Area 5, West-Central General Farming	6.35	3.23	4.62	11.58	16.15	15.56	13.18
Area 6, St. Louis Dairy and Wheat	3.26	2.03	3.32	5.79	7.76	6.35	6.77
Area 7, South-Central Mixed Farming	2.21	.91	1.96	3.47	4.47	4.67	2.18
Area 8, Wabash Valley Grain and Livestock	4.57	1.73	3.96	6.58	10.07	8.38	5.39
State Average (weighted by acres in each area)	$7.13	$3.74	$5.70	$12.90	$17.16	$15.64	$15.35

[a] Includes records of the Farm Bureau Farm Management Service for 1938-1945, except for areas 2, 3 and 4 in 1943 and 1944.

was $4.37 or 25 percent, as contrasted to a decrease of $2.99 or 35 percent in Area 8.

The net cash income per acre reflects, in part, the crop yields of the preceding years, because a large percentage of the grain and livestock sales are from crops harvested during prior years. It also reflects current prices for products produced in the area: Thus in Areas 1 and 2 the beneficial effect of high crop yields in 1944 and 1945 was enhanced by the prices of dairy products which averaged fairly high in relation to the prices of most other farm products, when the subsidy is taken into account.

Inventory changes by farming-type areas. The average inventory increased $190 a farm in 1945. Inventories increased in four areas and decreased in four other areas (Table 5). The $79 increase for machinery was the result of increased amounts of machinery and equipment available for purchase in 1945 and the overhauling of their old machinery. The $110 increase in land improvements indicates relatively large pur-

TABLE 5.—INVENTORY CHANGES BY FARMING-TYPE AREAS, 1945[a]

Farming-type areas	Number of records	Livestock	Feed and grain	Machinery	Buildings	Land improvements	Total
Area 1	136	$−282	$ 333	$ 81	$−101	$ 73	$ 104
Area 2	436	82	−408	117	−18	77	−150
Area 3	466	−12	−949	125	−50	83	−803
Area 4	1 149	239	552	63	−63	184	974
Area 5	224	74	−55	131	7	133	290
Area 6	253	−47	−292	51	39	47	−202
Area 7	131	80	−221	19	−20	68	−74
Area 8	83	195	512	50	−49	77	785
Weighted Average[b]		$ 79	$ −45	$ 79	$ −33	$110	$ 190

[a] Includes Farm Bureau Farm Management Service Records.
[b] Weighted by number of census farms.

TABLE 6.—NET INCOME AN ACRE (INVENTORY BASIS) FOR ILLINOIS ACCOUNTING FARMS BY FARMING-TYPE AREAS FOR THE PERIODS 1925-1929, 1930-1934, 1935-1939, AND 1940-1944 AND FOR THE YEARS 1943, 1944, 1945[a]

Farming-type areas	1925-1929	1930-1934	1935-1939	1940-1944	1943	1944	1945
Area 1, Chicago Dairy	$11.04	$2.64	$10.03	$20.54	$24.46	$17.91	$20.96
Area 2, Northwestern Mixed Livestock	15.11	2.70	11.45	22.00	27.12	19.27	20.03
Area 3, Western Livestock and Grain	10.24	2.84	11.43	21.61	24.45	19.30	18.35
Area 4, East-Central Cash Grain	10.30	2.76	11.05	20.84	25.29	18.17	22.51
Area 5, West-Central General Farming	7.69	1.99	7.92	15.38	18.96	14.53	14.26
Area 6, St. Louis Dairy and Wheat	5.41	.92	5.55	8.37	9.01	8.37	5.87
Area 7, South-Central Mixed Farming	3.34	.55	3.76	5.46	6.52	4.03	1.92
Area 8, Wabash Valley Grain and Livestock	5.34	1.20	5.22	9.21	12.07	6.73	8.56
State Average (weighted by acres in each area)	$8.59	$2.20	$9.23	$17.08	$20.44	$15.10	$16.12

[a] Includes records of the Farm Bureau Farm Management Service for 1938-1945, except for areas 2, 3, and 4 in 1943 and 1944.

chases of limestone and rock phosphate. Average building values in 1945 decreased $33, as shortages of building materials prevented new construction.

Variations in net income an acre with inventory changes included. When inventory changes were included, the average net income an acre was 7 percent higher in 1945 than in 1944 (Table 6); inventories increased in 1945 and decreased in 1944. In 1945, inventory increases averaged $190, but in 1944 inventory decreases averaged $152. The increase in 1945 of 7 percent with inventories included is in contrast with a decrease of 2 percent on the cash basis.

This is the twelfth time since 1932 that the net income an acre on the inventory basis has been higher than on the cash basis. The low years for the inventory basis were in 1930, 1931, 1932 and 1944. In 1945 the range in net income per acre on an inventory basis was from $1.92 in Area 7 to $22.51 in Area 4.

Income from agricultural payments. Cash incomes of accounting farmers in 1945 included government payments which were received during the year for participation in the agricultural conservation program.

Factors Affecting Farm Earnings

Farm account studies have repeatedly shown the principal factors affecting relative earnings to be land use, crop yields, amount of livestock, livestock efficiency, labor cost, machinery cost, and prices received for things sold. They have also shown the following: (1) the quality of land affects the cropping system and the crop yields; (2) the kind of livestock influences the kinds and amounts of feed fed as well as the returns for

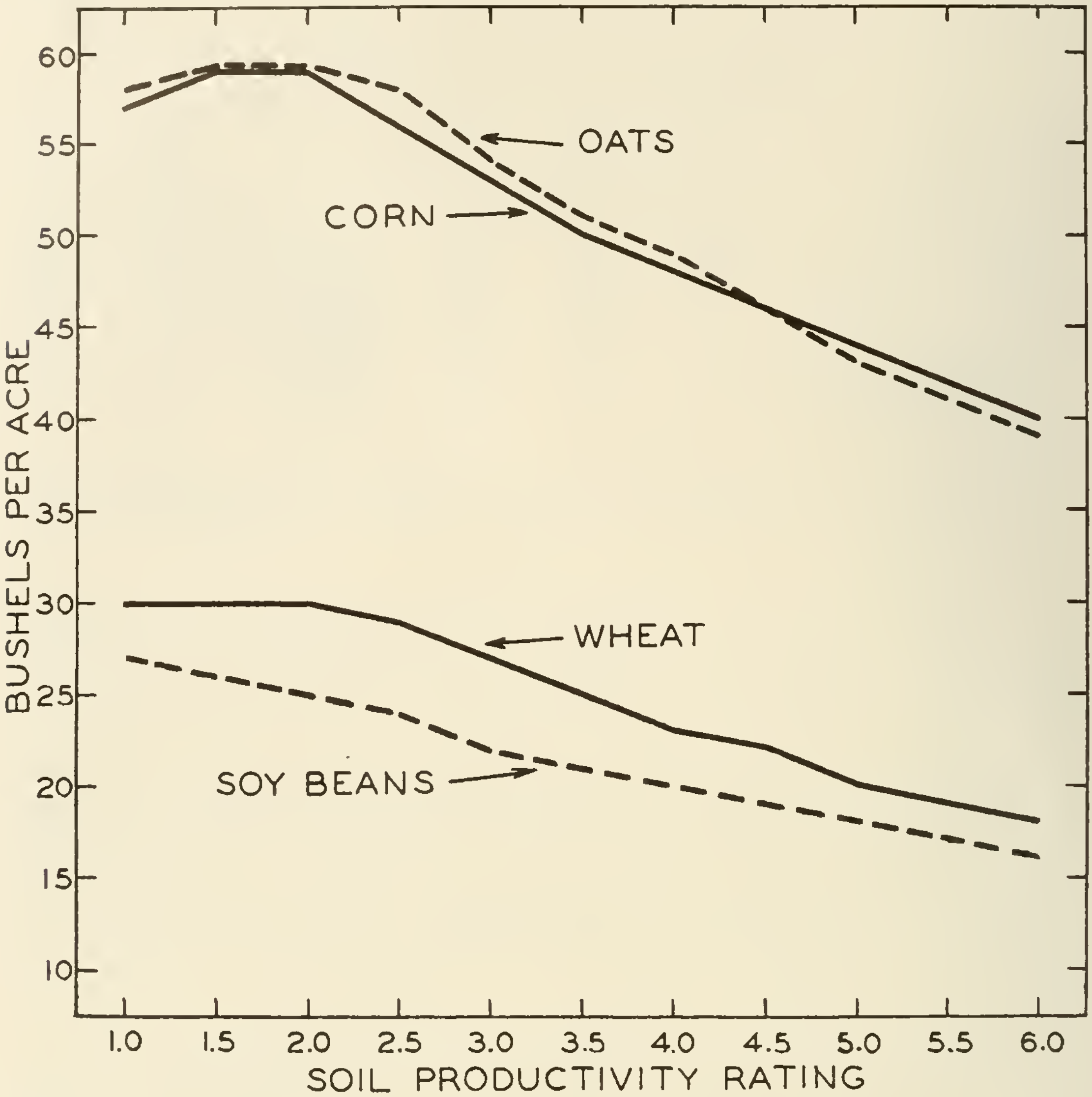

Fig. 4.—Average Yields of Corn, Oats, Wheat, and Soybeans on Soils of Varying Productivity Ratings; Farming-Type Areas 1, 2, 3, 4, 1945

feed fed; (3) the size and intensity of the farm business affects practically all the cost items; and (4) price relationships and quantities of products produced affect the relative profitableness of various types of farming for any particular year.

The terms used in the various figures and tables are the same as those used in the Illinois Farm Account Book. For example, "improved land," as used in this report, means tillable land and land occupied by farmstead, roads, and orchards.

The effect of quality of land on grain yields. The data for Figure 4 were taken from Farm Bureau Farm Management Service records principally in areas 1, 2, 3, and 4.

The soils on the improved land of each of 1,657 farms were rated according to the plan of the Soils Division of the Illinois Agricultural Ex-

Table 7.—Source of Income Related to Farm Earnings and Other Factors for 377 Accounting Farms in Farming-Type Areas 2 and 3, 1945

Item	Source of income				
	Grain 40%+	Dairy sales 40%+	Hogs 40%+	Hogs 40%+ and cattle 20%+ or vice versa	General farms
Number of farms	27	26	131	97	96
Percent of income from productive livestock	35.4	92.0	89.0	94.1	81.8
Percent of income from crops	59.5	3.9	5.8	1.8	12.6
Investments					
Total per farm	$40 487	$38 259	$32 935	$46 670	$38 251
Total per acre	174	183	170	193	179
Land per acre	114	87	93	98	93
Land improvements per acre	3.58	3.46	3.39	3.66	3.63
Buildings per acre	17.22	34.28	19.46	20.64	21.81
Machinery per acre[a]	12.19	14.03	13.47	12.57	12.59
Earnings					
Per farm					
Gross earnings	$ 8 660	$10 918	$ 9 239	$13 856	$ 9 519
Gross expenses[b]	4 522	6 585	5 858	8 838	5 827
Net earnings	$ 4 138	$ 4 333	$ 3 381	$ 5 018	$ 3 692
Per acre					
Gross earnings	$ 37.16	$ 52.28	$ 47.68	$ 57.44	$ 44.45
Gross expenses[b]	19.40	31.53	30.23	36.64	27.21
Net earnings	$ 17.76	$ 20.75	$ 17.45	$ 20.80	$ 17.24
Rate earned on investment (percent)	10.2	11.3	10.3	10.8	9.6
Labor and management earnings	$ 3 514	$ 3 973	$ 3 146	$ 4 119	$ 3 259
Size and Intensity					
Acres per farm	233	209	194	241	214
Percent of land area tillable	87.0	81.3	79.7	81.4	80.9
Percent tillable land in grain	82.6	56.5	71.0	68.4	68.2
Percent tillable land in hay and pasture	15.2	37.9	26.6	28.4	26.7
Feed fed per acre to productive livestock	$ 10.16	$ 29.42	$ 29.67	$ 38.26	$ 25.23
Months of labor per 100 crop acres	9.4	16.2	14.1	13.7	13.7
Total months of labor	17.1	21.8	18.4	22.7	20.2
Crop Yields per Acre					
Corn, bu	45.9	54.1	50.1	50.5	50.9
Livestock Returns					
Per $100 feed fed	$140	$168	$148	$145	$150
Hog returns per litter	169	183	233	219	208
Dairy returns per cow milked	179	259	173	164	183
Expense Factors					
Labor cost per crop acre[b]	$ 11.20	$ 21.51	$ 17.54	$ 16.80	$ 16.96
Power and machinery cost per crop acre	8.08	12.50	11.39	11.05	10.79
Land improvement cost per acre	1.29	.88	1.01	1.11	1.20
Building cost per acre	1.15	2.23	1.58	1.68	1.75
Land tax per acre	1.16	1.22	1.23	1.29	1.18

[a] Machinery includes farm share of automobile.
[b] Expenses include operator's and family's labor.

periment Station. This gives the most productive soils a rating of 1 and the least productive soils a rating of 10. The yields in Figure 4 are averages for soils of different ratings in each of eight Farm Bureau Farm Management Service areas.

The variations in yields as they affect the productive value of land are significant. However, it should be kept in mind that these are average yields over a wide area for one year (1945) only. Data of this type are valuable because they enable farmers to compare yields on their own farms with those on farms having a similar quality of land.

Source of income. Grouping by source of income for 1945 gives each farmer an opportunity to compare his farm with the average of

Table 8.—Returns Necessary to Pay All Costs, and Profit or Loss per $100 Worth of Feed Fed to Different Classes of Livestock

Year	Dairy herds		Poultry		Feeder cattle		Hogs		Yearly price of corn
	Returns	Necessary returns	Returns	Necessary returns	Returns	Necessary returns	Returns	Necessary returns	
1933	$152	$171	$217	$225	$ 97	$120	$128	$137	$.32
1934	145	155	198	200	125	116	127	125	.58
1935	143	148	211	192	152	112	174	126	.74
1936	150	147	180	183	96	116	155	124	.73
1937	159	151	157	172	106	124	122	121	.91
1938	193	188	208	200	142	115	184	135	.45
1939	204	193	195	201	131	120	144	136	.43
1940	198	197	177	194	136	122	118	134	.54
1941	212	187	202	186	124	119	193	136	.63
1942	176	182	187	172	136	117	201	134	.77
1943	160	167	169	177	105	121	136	132	.97
1944	166	181	140	172	107	113	125	132	1.07
1945	174	([a])	159	...	119	...	138	...	1.07
12-year average[b]	172	172	187	189	121	118	151	131	.68

[a] Data for 1945 is not yet available.
[b] Average for 12 years of 1933 to 1944 inclusive.

other farms having similar sources of income. It also gives him an opportunity to study investments, land use, crop yields, labor requirements, horse and machinery requirements, and other factors associated with various types of farming.

Farmers, however, should be careful in interpreting the data in Table 7. For example, the fact that dairy farmers earned the largest rate on the investment for 1945 and that general farms earned the smallest does not mean that such a relationship will prevail over a long period of years. The relative profitableness of enterprises in 1945 was influenced by conditions affecting prices, production and costs.

When comparing crop yields for the various types of farming, one should note the following items indicating that the grain farms were located on the better land: (1) higher value of land per acre; and (2) larger percent of land in grain.

Differences in expenses are highly significant for the 5 groups of farms. Labor input per 100 acres was highest on the dairy farms, where 16.2 months of labor were used, and lowest on the grain farms, where 9.4 months of labor were used. The dairy farmers evidently utilized a large amount of labor to increase the size of their businesses without increasing the size of their farms.

The labor cost per crop acre ranged from $21.51 on the dairy farms to $11.20 on the grain farms; the horse and machinery cost per crop acre was highest on the dairy farms, where it averaged $12.50 and lowest on the grain farms, where it averaged $8.08; the building cost per acre averaged $2.23 on the dairy farms and $1.15 on the grain farms.

Labor, horse and machinery, and improvement costs were higher for all sources of income groups in 1945 than in 1944; labor cost per crop acre, for example, was 4 percent higher on the grain farms in 1945 than in 1944.

Returns for feed fed and necessary returns compared. The returns per $100 worth of feed fed in Table 8 are averages of several hundred farm records kept each year by cooperators in the Farm Bureau Farm Management Service. The returns from each class of livestock are obtained by subtracting the purchases of livestock and the inventory value on January 1 from the sales of livestock and livestock products and the inventory value on December 31, plus the value of livestock and livestock products used in the home, or, in the case of milk, fed to livestock. The value of feed is obtained by adding to the farm values of farm grown feeds including pasture the purchase values of protein supplements, mill feeds, and minerals.

The necessary returns to pay for $100 worth of feed and other costs including labor, use of equipment, interest on investment, and general farm expense as used in this analysis are obtained from the complete cost account studies conducted in Champaign and Piatt counties by the Department of Agricultural Economics.

The profit or loss per $100 worth of feed fed is obtained by subtracting the necessary returns, as shown by the complete cost studies, from the returns received by the cooperators in the Farm Bureau Farm Management Service. Thus, the twelve-year averages in Table 8 indicate neither a profit nor a loss for dairy herds, a $2 loss for poultry, a $3 gain for feeder cattle, and a $20 gain for hogs. The table also shows for the various classes of livestock wide differences in profits or losses from year to year.

Size of farm. When the farm records in Farming-Type Areas 2 and 3 are sorted according to the total acres in the farm (Table 9), they indicate that the operators on the largest farms took in more money during the year than did those on the smallest ones; and after deductions were made for farm business expenditures and interest on the investment, the 31 largest farms had labor and management earnings which averaged $5,663 contrasted with $2,051 for 50 smallest farms. The latter had higher investments an acre for improvements, machinery, and total investment, indicating a higher capital input. The rate earned on investment increased moderately from the farms averaging 102 acres to those averaging 242 acres and showed no significant change as the size of farms were further increased.

TABLE 9.—SIZE OF FARM RELATED TO FARM EARNINGS AND OTHER FACTORS FOR 377 ACCOUNTING FARMS IN FARMING-TYPE AREAS 2 AND 3, 1945

Item	Total acres in farm				
	Less than 121	121 to 200	201 to 280	281 to 360	361 or more
Number of farms	50	159	98	39	31
Acres per farm	102	164	242	325	437
Acres in crops	72	116	168	220	280
Investments					
Total per farm	$20 209	$31 840	$42 888	$54 591	$70 856
Total per acre	198	194	177	168	162
Land per acre	96	101	96	93	88
Land improvements per acre	4.82	4.07	3.31	3.33	2.68
Buildings per acre	26.68	23.44	20.98	18.21	18.10
Machinery per acre[a]	16.39	14.72	12.44	11.48	10.28
Earnings					
Per farm					
Gross earnings	$ 6 146	$ 9 231	$11 472	$13 674	$17 846
Gross expenses[b]	4 501	5 984	6 826	8 157	10 121
Net earnings	$ 1 645	$ 3 247	$ 4 646	$ 5 517	$ 7 725
Per acre					
Gross earnings	$ 60.16	$ 56.38	$ 47.46	$ 42.04	$ 40.84
Gross expenses[b]	44.05	36.55	28.24	25.08	23.16
Net earnings	$ 16.11	$ 19.83	$ 19.22	$ 16.96	$ 17.68
Rate earned on investment (percent)	8.1	10.2	10.8	10.1	10.9
Labor and management earnings	$ 2 051	$ 3 107	$ 3 945	$ 4 205	$ 5 663
Size and Intensity					
Percent of land area tillable	85.8	84.1	80.4	79.9	76.4
Percent tillable land in grain	64.6	68.6	71.2	70.1	70.1
Percent tillable land in hay and pasture	32.3	28.2	25.2	26.9	25.7
Feed fed per acre to productive livestock	$ 36.78	$ 33.62	$ 29.15	$ 23.41	$ 25.11
Percent of income from productive livestock	90.1	87.9	85.9	81.4	84.2
Percent of income from crops	4.0	6.8	9.4	14.0	12.0
Months of labor per 100 crop acres	20.0	15.4	12.5	11.5	11.4
Total months of labor	14.5	17.8	20.9	25.3	31.8
Crop Yields per Acre					
Corn, bu.	53.7	51.2	51.0	46.8	48.4
Expense Factors					
Labor cost per crop acre	$ 25.13	$ 19.09	$ 15.50	$ 14.08	$ 14.08
Power and machinery cost per crop acre	13.98	12.07	10.37	9.77	9.35
Land improvements cost per acre	1.44	1.24	1.03	1.04	.87
Buildings cost per acre	2.12	1.87	1.60	1.36	1.49
Land tax per acre	1.32	1.30	1.22	1.14	1.16

[a] Machinery includes farm share of automobile.
[b] Expenses include operator's and family's labor.

In 1945, the smaller farms were operated more intensively than were the larger ones. This is indicated by the higher gross earnings an acre, by the larger labor and capital inputs an acre, and by the larger value of feed fed an acre to productive livestock.

The method used to increase the volume of business depended upon the individual farm. Some farm operators apparently increased the volume of their businesses by improving the quality and increasing the amount of livestock; others, by growing more intensive crops, by increasing crop yields, or by developing special markets; still others, by increasing the acreage operated or by applying combinations of the above methods.

Labor and power and machinery expenses. The effect of the amount of feed fed an acre to productive livestock on labor and power and machinery costs per crop acre is shown in Table 10.

TABLE 10.—LABOR COST AND POWER AND MACHINERY COST PER CROP ACRE FOR DIFFERENT SIZE FARMS AND DIFFERENT AMOUNTS OF FEED FED PER ACRE TO PRODUCTIVE LIVESTOCK
(Accounting Farms in Farming-Type Area 4, 1945)

Acres per farm	Feed fed per acre				Feed fed per acre			
	Less than $11.00	$11.00 to $17.99	$18.00 to $24.99	$25.00 and more	Less than $11.00	$11.00 to $17.99	$18.00 to $24.99	$25.00 and more
	(Labor cost per crop acre)				(Power and machinery cost per crop acre)			
Less than 120	$13.20	$17.10	$19.30	$24.50	$10.20	$11.60	$11.80	$12.00
121 to 200	11.70	13.50	15.00	18.20	8.80	9.70	10.60	11.30
201 to 280	10.40	11.70	12.90	14.50	7.70	8.70	9.30	9.90
281 to 360	9.30	11.00	11.70	12.20	7.30	7.90	8.90	9.40
361 to 440	8.20	10.10	10.50	11.80	6.60	7.50	8.30	8.70
441 or more	7.50	9.50	10.00	11.50	5.90	7.00	7.90	8.20

As the size of farms increased from the smallest to the largest size group the labor cost per crop acre decreased much more than the power and machinery cost per crop acre. For example, with farms feeding $20 worth of feed per crop acre, the labor cost per crop acre decreased from $19.30 to $10.00 and power and machinery cost decreased from $11.80 to $7.90. In the former case the decrease was $9.30, but in the latter it was only $3.90. If labor cost had been lower in relation to power and machinery cost, the difference would not have been so great. The comparison shows that the adjustment to size of farm business presents a bigger problem in connection with labor than with power and machinery. In 1945, labor cost per crop acre was higher than power and machinery cost for each farm size group.

Four other significant things are apparent in this table: (1) costs per crop acre increased as the size of the farms decreased; (2) costs increased as the amount of feed fed per acre increased; (3) costs (especially labor costs) decreased much less rapidly when large farms were increased in size than when small ones were increased (this situation is explained in part by the fact that dairy cattle and poultry predominate on the smaller farms and that beef cattle predominate on the larger farms); and (4) labor costs increased rapidly as the feed fed increased from less than $11.00 to $11.00 to $17.99 an acre.

Farmers who know what their costs for labor and for power and machinery expense per crop acre were in 1945 will find that these data contain a basis for comparing their expenses with averages for other farms of the same size and with the same intensity of livestock.[1]

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[1] Data for other areas of Illinois are available in the area reports for 1945.

Analysis of Farm Leases

In 1945, tenants in areas 1 and 6 received more income per $100 input than their landlords; but in areas 2, 3, 4 and 5 this situation was reversed. By income is meant "Receipts and Net Increases" as used in the farm account book; and by input is meant "Expenses and Net Decreases," plus the value of unpaid labor and interest on investment. This analysis is restricted to those areas with large numbers of records on all rented farms.

Variations in income per $100 input between landlord and tenant from area to area were due to price relationships, volume of production, kinds of leases, and other factors. Under a different set of conditions than those prevailing in 1945 the results would be different.

The rental value of the residence was not included in the tenant's gross income nor in the landlord's total input because the records did not furnish sufficient information to make this computation. Had this item been included, the comparisons would be more favorable to tenants and less favorable to landlords than is shown in Table 11.

Also excluded from the computations is the value of management of both tenant and landlord, because there is no satisfactory basis for evaluating management. If groups of tenants and landlords contribute management in proportion to the value of their other inputs, the exclusion of this item does not affect final results. It should be recognized, however, that there are wide variations in the value of management contributed by individual tenants and landlords.

In the analysis, real estate values, as shown in the farm account books, were adjusted to bring them in line with the 1945 market price. These adjustments considered a 63 percent increase in market price of land in Illinois from 1935-1939 to 1945; also, changes that had been made by account keepers in their real estate valuations. Another adjustment was in the interest rate on real estate, from five to four percent, to make it more in line with the current mortgage rate. The foregoing analysis is

TABLE 11.—GROSS INCOME, INPUT, AND INCOME PER $100 INPUT FOR LANDLORD AND TENANT; ACCOUNTING FARMS, 1945[a]

	Rented[b] farms	Gross income		Total input		Income per $100 input[c]	
		Tenant	Landlord	Tenant	Landlord	Tenant	Landlord
Area 1	70	$9,207	$5,131	$7,445	$4,482	$124	$114
Area 2	66	6,695	4,455	5,609	3,198	119	139
Area 3	96	8,492	4,238	6,853	3,232	124	131
Area 4	99	6,620	4,312	5,113	3,073	130	140
Area 5	46	6,799	3,263	5,558	2,407	122	135
Area 6	61	5,451	1,271	4,817	1,231	113	103

[a] Records from state-wide extension project.
[b] Part rented farms excluded.
[c] Income and expenses on farm dwelling omitted.

based on the general principle that a farm lease is equitable when the landlord and tenant share in the gross income in proportion to the value of their inputs, often called contributions. Or, in other words, when each party to the contract is paid in proportion to the value of the items which each contributes. In applying this principle care must be exercised in using comparable values for capital, interest rates, unpaid labor, management, and other items.

Data for Counties and Groups of Counties

Averages were calculated for each county with sufficient records to give significant averages and for groups of counties with small numbers of records. These averages are arranged in Table 14 according to farming-type areas. Counties or groups of counties in Area 1 come first in the list, and those in Area 9 at the end of it. For summaries by farming-type areas see Tables 12 and 13.

TABLE 12.—INVESTMENTS, CASH RECEIPTS, CASH EXPENSES, AND INVENTORY CHANGES
AVERAGES PER FARM BY FARMING-TYPE AREAS, 1945

Item	Area 1	Area 2	Area 3	Area 4	Area 5	Area 6	Area 7	Area 8	Area 9
Capital investment, total	$45 638	$39 661	$47 594	$52 223	$35 060	$21 286	$17 227	$20 700	$12 907
Land	19 783	18 590	25 822	32 855	19 763	10 677	8 765	11 209	6 256
Land improvements	914	887	1 015	1 072	883	534	702	692	356
Farm buildings	8 881	6 352	4 801	5 139	3 569	2 577	1 862	2 414	1 348
Machinery and equipment[a]	3 125	2 821	3 101	3 221	2 623	2 339	1 557	1 730	1 071
Feed and grain	4 886	4 921	5 976	5 458	3 774	2 508	1 826	2 244	1 441
Livestock, total	8 049	6 090	6 879	4 478	4 448	2 651	2 515	2 411	2 435
Cash receipts, total	$18 875	$14 986	$18 318	$15 775	$13 323	$ 8 311	$ 6 139	$ 7 162	$ 4 621
Feed and grain	1 782	2 113	3 425	6 658	3 771	1 973	1 636	2 195	939
AAA payments	71	98	123	116	110	119	112	120	92
Labor and miscellaneous	507	357	493	511	460	303	195	209	163
Livestock, total	16 515	12 418	14 277	8 490	8 982	5 916	4 196	4 638	3 427
Horses	21	21	25	29	26	29	32	17	99
Cattle	7 436	4 678	5 417	2 893	2 795	1 074	1 251	1 096	897
Hogs	2 683	4 322	6 996	3 468	4 238	1 510	1 504	2 382	978
Sheep	78	180	439	185	134	82	123	58	130
Poultry and eggs	675	741	568	775	558	849	662	681	566
Dairy sales	5 622	2 476	832	1 140	1 231	2 372	624	404	757
Cash expenses, total	$13 042	$ 8 682	$11 018	$ 8 829	$ 8 033	$ 4 882	$ 4 171	$ 4 438	$ 2 892
Land improvements	470	384	365	519	420	309	442	470	211
Farm buildings	647	470	421	378	337	277	156	139	113
Livestock purchases	4 803	2 580	3 076	1 901	1 522	551	613	579	507
Feed and grain	2 415	1 732	2 840	1 647	2 207	1 386	1 041	1 077	633
Machinery and equipment	2 351	1 946	2 319	2 390	2 010	1 461	1 203	1 322	903
Hired labor	1 202	686	931	870	683	351	260	355	191
Crop expense	489	360	404	437	328	221	176	187	130
Taxes	352	309	430	477	363	209	190	233	154
Livestock and miscellaneous	313	215	232	210	163	117	90	76	50
Cash balance	$ 5 833	$ 6 304	$ 7 300	$ 6 946	$ 5 290	$ 3 429	$ 1 968	$ 2 724	$ 1 729
Increase in inventory	104	−150	−803	974	290	−202	−74	785	528
Total unpaid labor	1 703	1 901	1 778	1 710	1 733	1 900	1 362	1 394	1 331
Net farm income	$ 4 234	$ 4 253	$ 4 719	$ 6 210	$ 3 847	$ 1 327	$ 532	$ 2 115	$ 926
Number of farms included	136	436	466	1 149	224	253	131	83	33

[a] Includes farm share of automobile.

TABLE 13.—FACTORS HELPING TO ANALYZE THE FARM BUSINESS BY FARMING-TYPE AREAS, 1945

Item	Area 1	Area 2	Area 3	Area 4	Area 5	Area 6	Area 7	Area 8	Area 9
Size of farm, acres	202	212	257	276	270	226	278	247	237
Tillable land (percent)	83	80	80	90	78	82	83	84	70
Inventory basis									
Gross receipts per acre[a]	$65.10	$54.26	$51.21	$47.13	$38.16	$29.78	$17.77	$26.64	$17.92
Total expenses per acre	41.96	32.23	31.21	23.06	22.46	22.08	14.48	16.46	12.32
Net receipts per acre	$23.14	$22.03	$20.00	$24.07	$15.70	$ 7.70	$ 3.29	$10.18	$ 5.60
Cash basis									
Gross receipts per acre	$93.44	$70.59	$71.22	$57.18	$49.38	$36.79	$22.11	$29.00	$19.47
Total cash expense per acre[b]	73.00	49.85	49.75	38.20	36.20	30.02	19.93	23.61	17.79
Net cash income per acre	$20.44	$20.74	$21.47	$18.98	$13.18	$ 6.77	$ 2.18	$ 5.39	$ 1.68
Acres in: Corn	55	63	85	95	56	25	26	48	28
Oats	38	39	41	41	20	15	9	5	5
Wheat	1	1	2	6	21	43	32	38	16
Soybeans	6	6	23	53	50	21	22	13	7
Bushels per acre: Corn	51	52	49	55	49	35	34	48	41
Oats	67	62	50	51	35	25	17	23	13
Wheat	27	29	26	24	20	19	16	16	16
Soybeans	25	24	23	23	20	14	13	16	17
Value of feed fed to livestock	$8 286	$7 234	$8 438	$5 307	$5 224	$3 544	$2 788	$3 148	$2 035
Returns per $100 feed fed	147	145	139	139	156	168	149	153	186
Feed fed per acre to livestock	39.96	33.41	32.33	18.85	18.77	14.95	9.61	12.21	7.78
Returns per acre from livestock	58.71	48.51	45.02	26.14	29.25	25.13	14.37	18.65	14.46
Power and machinery cost per crop acre	$14.83	$11.85	$11.09	$ 9.30	$ 9.89	$ 9.70	$ 8.37	$ 9.05	$10.56
Labor cost per crop acre	19.67	17.83	15.05	11.62	13.96	16.02	11.77	12.43	17.76
Value of land per acre	$ 98	$ 88	$ 100	$ 119	$ 73	$ 47	$ 32	$ 45	$ 26
Value of land improvements per acre	5	4	4	4	3	2	3	3	2
Value of buildings per acre	44	30	19	19	13	11	7	10	6
Total investment per acre	226	187	185	189	130	94	62	84	54
Number of farms included	136	436	466	1 149	224	253	131	83	33

[a] Farm products used in household included.
[b] Includes charge for unpaid labor.

Table 14.—Summary of Business Records From 2,917 Illinois Farms by Counties and by Groups of Counties, 1945

Accounting Item		McHenry	Kane	DuPage, Lake, Cook, Boone	DeKalb
Capital investment, total	*1*	$36 006	$57 720	$43 106	$52 810
Land	*2*	15 117	24 225	19 702	27 014
Land improvements	*3*	744	1 347	690	1 022
Farm buildings	*4*	7 436	11 230	8 065	7 628
Horses	*5*	192	246	203	173
Cattle	*6*	4 733	9 616	5 279	5 112
Hogs	*7*	579	1 661	1 045	1 877
Sheep	*8*	17	17	94	161
Poultry	*9*	189	200	197	160
Feed and grain	*10*	4 243	5 586	4 805	6 327
Machinery and equipment	*11*	2 756	3 592	3 026	3 336
Income, net increases, total	*12*	$12 184	$15 990	$11 578	$13 785
Cattle	*13*	1 172	5 955	2 010	3 985
Dairy sales	*14*	7 891	4 136	5 115	1 759
Hogs	*15*	1 348	3 400	2 257	5 003
Sheep	*16*	14	14	68	154
Poultry and eggs	*17*	672	654	564	601
Farm products used in household	*18*	412	463	445	418
Feed and grain	*19*	534	1 198	970	1 729
AAA payment	*20*	61	75	75	87
Labor and miscellaneous	*21*	80	95	74	49
Expenses, net decreases, total	*22*	$ 6 002	$ 8 891	$ 5 637	$ 5 533
Land improvements	*23*	364	556	281	348
Farm buildings	*24*	588	915	607	516
Feed and grain	*25*	1 113	2 922	1 160	1 159
Machinery and equipment	*26*	1 725	2 224	1 763	1 838
Hired labor	*27*	1 251	1 334	1 058	1 013
Taxes	*28*	318	364	369	358
Livestock and miscellaneous	*29*	643	576	399	301
Receipts less expenses	*30*	$ 6 182	$ 7 099	$ 5 941	$ 8 252
Unpaid labor	*31*	1 661	1 695	1 741	1 926
Net farm earnings	*32*	$ 4 521	$ 5 404	$ 4 200	$ 6 326
Rate earned on investment, percent	*33*	12.6	9.4	9.7	12.0
Labor and management earnings	*34*	$ 4 054	$ 3 863	$ 3 379	$ 5 115
Excess of sales over expenses	*35*	5 643	6 392	5 523	8 064
Increase in inventory	*36*	127	244	−27	−230
Number of farms included	*37*	40	43	53	90
Size of farm, acres	*38*	187	209	207	216
Gross earnings per acre	*39*	$ 65.16	$ 76.40	$ 55.82	$ 63.85
Total expenses per acre	*40*	40.98	50.58	35.57	34.55
Net earnings per acre	*41*	$ 24.18	$ 25.82	$ 20.25	$ 29.30
Value of land per acre	*42*	$ 81	$116	$ 95	$125
Value of improved land per acre	*43*	87	118	100	128
Value of buildings per acre	*44*	39.76	53.65	38.89	35.33
Total investment per acre	*45*	193	276	208	245
Percent of land area tillable	*46*	79.6	87.9	81.4	92.2
Percent of tillable land in:					
Corn	*47*	36.0	46.7	40.3	46.6
Oats	*48*	22.2	22.7	23.1	23.9
Wheat	*49*	.1	.5	.5	.2
Soybeans for grain	*50*	1.0	4.2	5.3	5.2
Other cultivated crops	*51*	1.8	.3	1.0	1.0
Hay and pasture	*52*	38.9	25.6	29.8	23.1
Bushels per acre: Corn	*53*	51.7	55.8	45.6	54.0
Oats	*54*	64.6	73.1	64.4	70.3
Wheat	*55*	15.0	24.0	30.0	34.0
Soybeans	*56*	20.7	25.8	23.5	24.9
Feed fed per acre	*57*	$ 35.15	$ 50.48	$ 34.62	$ 37.24
Returns for $100 feed fed	*58*	170	137	143	147
Number of litters farrowed	*59*	9	25	14	25
Returns per litter	*60*	$215	$234	$201	$257
Dairy returns per cow	*61*	295	293	279	258
Egg returns per hen	*62*	4.77	4.44	4.20	4.41
Power and machinery cost per crop acre	*63*	$ 16.35	$ 15.46	$ 13.35	$ 11.31
Labor cost per crop acre	*64*	23.72	18.39	18.33	16.47
Land improvements cost per acre	*65*	1.95	2.66	1.35	1.61
Farm buildings cost per acre	*66*	3.14	4.37	2.93	2.39
Taxes per acre	*67*	1.70	1.74	1.78	1.66

(*Continued*)

TABLE 14.—SUMMARY OF BUSINESS RECORDS FROM 2,917 ILLINOIS FARMS BY COUNTIES AND BY GROUPS OF COUNTIES, 1945—*Continued*

	Stephenson	Lee	Ogle	Rock Island	Winnebago	Whiteside	Jo Daviess	Carroll
1	$31 817	$50 780	$37 416	$32 257	$38 458	$38 588	$29 372	$32 157
2	12 932	27 728	16 891	15 825	14 959	17 283	12 234	14 449
3	654	1 379	755	662	1 065	897	815	650
4	6 064	6 327	5 932	4 408	8 715	6 622	4 762	5 178
5	207	123	198	163	193	172	273	215
6	3 531	3 517	4 154	2 431	4 165	4 080	4 032	3 442
7	1 396	1 763	1 730	1 658	1 382	1 728	1 407	1 466
8	58	39	48	65	139	104	159	390
9	216	138	175	171	187	183	233	249
10	4 048	6 344	4 823	4 342	4 739	5 146	3 162	3 831
11	2 711	3 422	2 710	2 532	2 914	2 373	2 295	2 287
12	$10 891	$12 949	$10 867	$ 9 611	$11 533	$11 561	$10 291	$ 8 616
13	1 808	2 377	3 164	1 584	2 160	2 516	2 035	1 923
14	4 010	1 822	1 855	1 441	4 455	2 045	2 840	1 574
15	3 535	4 797	3 951	4 273	3 173	4 662	3 730	3 422
16	50	111	35	96	21	71	161	75
17	751	619	596	740	659	585	766	926
18	403	389	400	527	407	417	454	400
19	185	2 655	733	780	462	1 156	167	159
20	103	125	100	87	116	78	96	107
21	46	54	33	83	80	31	42	30
22	$ 4 654	$ 4 820	$ 4 923	$ 4 317	$ 4 951	$ 5 121	$ 5 224	$ 3 941
23	267	440	278	199	301	393	262	177
24	469	558	484	366	585	497	423	323
25	1 418	871	1 558	1 248	1 055	1 575	2 135	1 347
26	1 373	1 684	1 464	1 442	1 576	1 536	1 274	1 145
27	564	668	565	555	785	597	586	453
28	265	347	320	341	305	291	237	264
29	298	252	254	166	344	232	307	232
30	$ 6 237	$ 8 129	$ 5 944	$ 5 294	$ 6 582	$ 6 440	$ 5 067	$ 4 675
31	2 024	1 889	1 821	1 785	1 932	1 830	1 961	1 770
32	$ 4 213	$ 6 240	$ 4 123	$ 3 509	$ 4 650	$ 4 610	$ 3 106	$ 2 905
33	13.2	12.3	11.0	10.9	12.1	12.0	10.6	9.0
34	$ 4 033	$ 5 090	$ 3 653	$ 3 280	$ 4 100	$ 4 047	$ 3 008	$ 2 719
35	5 661	7 332	5 604	4 973	6 104	6 342	5 469	5 091
36	173	408	−60	−206	71	−319	−856	−816
37	72	43	51	41	38	38	43	20
38	177	242	203	194	238	212	249	193
39	$ 61.44	$ 53.58	$ 53.56	$ 49.59	$ 48.56	$ 54.48	$ 41.26	$ 44.60
40	37.67	27.76	33.24	31.48	28.98	32.76	28.81	29.56
41	$ 23.77	$ 25.82	$ 20.32	$ 18.11	$ 19.58	$ 21.72	$ 12.45	$ 15.04
42	$ 73	$115	$ 83	$ 82	$ 63	$ 81	$ 49	$ 75
43	78	119	91	91	70	89	62	86
44	34.20	26.18	29.24	22.75	36.69	31.21	19.09	26.80
45	179	210	184	166	162	182	118	166
46	79.9	88.0	80.2	77.3	75.7	82.1	54.0	74.2
47	34.2	41.3	39.2	44.3	37.5	44.9	31.0	37.6
48	23.9	22.6	27.7	19.5	24.1	18.7	21.6	23.5
49	.1	1.4	.2	.9	.4	2.4	.4	.3
50	1.4	8.0	1.9	2.7	2.4	5.7	.2	1.0
51	.5	3.3	.9	1.0	1.0	.5	3.3	2.0
52	39.9	23.4	30.1	31.6	34.6	27.8	43.5	35.6
53	51.8	54.9	50.3	56.5	48.4	53.0	42.9	50.9
54	62.9	66.0	64.7	48.3	56.3	58.0	51.7	57.8
55	25.0	33.3	12.5	19.2	23.3	29.8	16.0	20.0
56	21.0	26.2	20.3	19.0	18.4	21.3	16.7	29.3
57	$ 39.02	$ 29.37	$ 35.79	$ 30.73	$ 30.24	$ 35.43	$ 25.19	$ 31.72
58	151	141	136	143	149	136	158	134
59	18	22	20	21	17	22	18	17
60	$214	$260	$232	$223	$237	$234	$234	$241
61	243	233	235	186	253	219	190	197
62	4.38	4.49	4.45	5.15	4.77	5.29	4.20	4.44
63	$ 13.62	$ 9.78	$ 11.87	$ 12.68	$ 11.58	$ 11.27	$ 14.42	$ 11.67
64	22.29	13.65	17.01	18.49	17.85	15.95	24.03	18.88
65	1.51	1.82	1.37	1.03	1.27	1.85	1.05	.92
66	2.65	2.31	2.39	1.89	2.46	2.34	1.70	1.67
67	1.49	1.44	1.58	1.76	1.28	1.37	.95	1.37

(*Continued*)

TABLE 14.—SUMMARY OF BUSINESS RECORDS FROM 2,917 ILLINOIS FARMS BY COUNTIES AND BY GROUPS OF COUNTIES, 1945—*Continued*

Accounting Item		Henry	McDon-ough	Knox	Bureau
Capital investment, total	*1*	$47 773	$45 785	$53 179	$52 914
Land	*2*	24 443	26 051	29 368	27 244
Land improvements	*3*	1 003	1 033	1 264	1 192
Farm buildings	*4*	5 373	4 214	5 441	5 583
Horses	*5*	130	127	147	130
Cattle	*6*	4 300	2 794	3 926	5 269
Hogs	*7*	2 953	2 490	2 323	2 670
Sheep	*8*	133	96	181	616
Poultry	*9*	167	179	120	180
Feed and grain	*10*	6 184	5 838	6 938	6 314
Machinery and equipment	*11*	3 087	2 963	3 471	3 716
Income, net increases, total	*12*	$14 087	$12 274	$13 615	$14 106
Cattle	*13*	3 411	2 280	2 717	3 704
Dairy sales	*14*	943	568	1 141	1 038
Hogs	*15*	7 616	7 196	6 351	6 593
Sheep	*16*	180	79	92	197
Poultry and eggs	*17*	564	726	421	634
Farm products used in household	*18*	438	405	470	434
Feed and grain	*19*	782	900	2 238	1 327
AAA payment	*20*	117	103	135	125
Labor and miscellaneous	*21*	36	17	50	54
Expenses, net decreases, total	*22*	$ 7 260	$ 6 201	$ 5 982	$ 6 864
Land improvements	*23*	266	227	332	326
Farm buildings	*24*	488	388	479	522
Feed and grain	*25*	2 905	2 207	1 339	2 886
Machinery and equipment	*26*	1 892	1 768	1 968	1 717
Hired labor	*27*	972	914	1 115	803
Taxes	*28*	470	414	464	334
Livestock and miscellaneous	*29*	267	283	285	276
Receipts less expenses	*30*	$ 6 827	$ 6 073	$ 7 633	$ 7 242
Unpaid labor	*31*	1 760	1 764	1 830	1 859
Net farm earnings	*32*	$ 5 067	$ 4 309	$ 5 803	$ 5 383
Rate earned on investment, percent	*33*	10.6	9.4	10.9	10.2
Labor and management earnings	*34*	$ 4 112	$ 3 352	$ 4 547	$ 4 018
Excess of sales over expenses	*35*	7 930	7 497	7 603	8 414
Increase in inventory	*36*	−1 541	−1 829	−440	−1 608
Number of farms included	*37*	68	52	50	39
Size of farm, acres	*38*	244	231	297	229
Gross earnings per acre	*39*	$ 57.61	$ 53.18	$ 45.90	$ 61.60
Total expenses per acre	*40*	36.89	34.51	26.34	38.09
Net earnings per acre	*41*	$ 20.72	$ 18.67	$ 19.56	$ 23.51
Value of land per acre	*42*	$100	$113	$ 99	$119
Value of improved land per acre	*43*	108	120	113	126
Value of buildings per acre	*44*	21.98	18.26	18.34	24.38
Total investment per acre	*45*	195	198	179	231
Percent of land area tillable	*46*	82.3	86.6	79.6	87.1
Percent of tillable land in:					
Corn	*47*	45.0	42.3	39.2	44.3
Oats	*48*	20.0	17.7	18.7	23.2
Wheat	*49*	1.0	1.2	2.3	1.0
Soybeans for grain	*50*	6.5	15.8	14.1	3.4
Other cultivated crops	*51*	1.2	1.0	.6	.8
Hay and pasture	*52*	26.3	22.0	25.1	27.3
Bushels per acre: Corn	*53*	49.3	44.1	47.9	54.6
Oats	*54*	54.0	40.8	53.8	57.4
Wheat	*55*	27.5	22.6	30.9	29.0
Soybeans	*56*	25.2	19.6	23.7	28.7
Feed fed per acre	*57*	$ 38.99	$ 34.26	$ 26.69	$ 42.00
Returns for $100 feed fed	*58*	137	141	140	130
Number of litters farrowed	*59*	39	34	32	32
Returns per litter	*60*	$205	$225	$211	$230
Dairy returns per cow	*61*	184	147	191	190
Egg returns per hen	*62*	4.34	4.86	4.10	4.06
Power and machinery cost per crop acre	*63*	$ 12.03	$ 10.87	$ 10.33	$ 11.08
Labor cost per crop acre	*64*	16.03	15.23	14.37	15.72
Land improvements cost per acre	*65*	1.09	.98	1.12	1.42
Farm buildings cost per acre	*66*	2.00	1.68	1.61	2.28
Taxes per acre	*67*	1.92	1.79	1.56	1.46

(*Continued*)

TABLE 14.—SUMMARY OF BUSINESS RECORDS FROM 2,917 ILLINOIS FARMS BY COUNTIES AND BY GROUPS OF COUNTIES, 1945—*Continued*

	Marshall-Putnam	Peoria	Fulton	Henderson, Hancock	Mercer	Warren	Stark	McLean
1	$61 434	$44 191	$36 710	$39 794	$44 552	$47 351	$50 332	$62 194
2	35 212	24 867	20 176	20 966	21 853	25 776	28 619	38 201
3	1 140	958	729	914	1 012	888	936	1 214
4	5 788	5 126	3 856	3 607	4 596	4 278	4 719	6 362
5	148	149	147	211	198	252	93	149
6	4 310	2 276	3 112	3 859	5 178	4 500	2 131	3 385
7	3 083	2 207	1 895	2 110	2 779	2 635	2 455	1 836
8	511	378	89	91	82	82	1 227	243
9	140	151	151	104	140	128	161	191
10	7 605	5 318	4 069	5 124	5 554	6 145	6 459	7 095
11	3 497	2 761	2 486	2 808	3 160	2 667	3 532	3 518
12	$17 423	$12 372	$10 905	$11 305	$12 493	$13 878	$12 136	$15 667
13	3 650	1 607	2 102	2 871	3 659	4 496	1 334	2 029
14	938	696	1 345	562	520	466	789	1 171
15	9 721	6 333	5 648	5 661	7 045	6 796	5 587	5 390
16	448	339	96	92	85	76	503	121
17	392	629	574	355	431	371	475	668
18	420	439	404	376	402	443	420	398
19	1 591	2 117	314	1 250	188	1 035	2 809	5 696
20	177	120	128	108	119	111	108	120
21	86	92	294	30	44	84	111	74
22	$ 6 630	$ 5 090	$ 5 252	$ 6 022	$ 7 016	$ 6 622	$ 5 341	$ 6 098
23	341	308	189	298	234	229	290	307
24	591	451	338	344	469	401	490	542
25	1 877	1 070	1 733	2 126	2 796	2 586	1 032	910
26	1 978	1 722	1 553	1 738	1 785	1 768	1 952	2 259
27	1 043	914	756	872	897	971	917	1 245
28	492	370	425	379	523	406	464	517
29	308	255	258	265	312	261	196	318
30	$10 7[illegible]3	$ 7 282	$ 5 653	$ 5 283	$ 5 477	$ 7 256	$ 6 795	$ 9 569
31	2 029	1 500	1 897	1 705	1 841	1 665	1 717	1 666
32	$ 8 764	$ 5 782	$ 3 756	$ 3 578	$ 3 636	$ 5 591	$ 5 078	$ 7 903
33	14.3	13.1	10.2	9.0	8.2	11.8	10.1	12.7
34	$ 6 994	$ 4 784	$ 3 328	$ 2 932	$ 2 756	$ 4 672	$ 3 902	$ 6 115
35	9 897	5 600	6 504	5 651	6 271	8 254	6 251	8 036
36	476	1 243	−1 255	−744	−1 196	−1 441	124	1 135
37	40	39	37	54	26	30	31	92
38	320	239	247	250	273	255	254	297
39	$ 54.38	$ 51.72	$ 44.08	$ 45.13	$ 45.73	$ 54.36	$ 47.84	$ 52.82
40	27.03	27.55	28.90	30.85	32.42	32.46	27.82	26.18
41	$ 27.35	$ 24.17	$ 15.18	$ 14.28	$ 13.31	$ 21.90	$ 20.02	$ 26.64
42	$110	$104	$ 82	$ 84	$ 80	$101	$113	$129
43	127	117	98	95	95	112	118	132
44	18.06	21.43	15.59	14.40	16.82	16.76	18.60	21.45
45	192	185	148	159	163	185	198	210
46	80.0	81.9	71.9	77.6	69.4	78.6	87.0	92.0
47	41.2	40.8	33.9	37.4	48.8	44.7	46.0	44.3
48	22.5	19.8	18.4	18.6	19.7	21.3	20.6	20.9
49	1.4	1.3	1.8	1.6	.2	.7	....	.1
50	10.6	11.8	15.4	18.5	2.2	5.2	10.8	14.5
51	.5	.7	5.0	1.6	.6	.8	.5	.1
52	23.8	25.6	25.5	22.3	28.5	27.3	22.1	20.1
53	54.2	51.7	50.4	46.5	46.4	50.3	47.3	58.1
54	58.9	52.8	45.8	36.5	43.1	46.0	53.0	52.7
55	30.0	26.0	16.4	21.0	12.5	21.4	....	25.0
56	27.2	23.1	18.8	22.0	20.7	20.0	24.2	24.2
57	$ 34.46	$ 28.87	$ 29.33	$ 28.07	$ 33.40	$ 31.42	$ 26.39	$ 23.70
58	140	144	139	140	132	157	135	138
59	52	30	27	25	35	33	35	30
60	$222	$217	$233	$233	$210	$223	$215	$221
61	192	179	222	155	185	185	177	201
62	3.82	4.46	4.17	3.52	3.77	3.61	3.55	4.13
63	$ 9.65	$ 10.79	$ 11.70	$ 11.81	$ 12.22	$ 11.79	$ 10.39	$ 9.76
64	13.37	13.45	17.89	15.41	16.79	15.32	13.21	11.79
65	1.06	1.29	.76	1.19	.86	.90	1.14	1.04
66	1.84	1.89	1.37	1.37	1.72	1.57	1.93	1.83
67	1.54	1.55	1.72	1.51	1.91	1.59	1.83	1.74

(*Continued*)

TABLE 14.—SUMMARY OF BUSINESS RECORDS FROM 2,917 ILLINOIS FARMS BY COUNTIES AND BY GROUPS OF COUNTIES, 1945—*Continued*

Accounting Item		Tazewell	Ford	Livingston	Woodford
Capital investment, total	*1*	$48 816	$55 159	$50 270	$50 953
Land	*2*	29 253	34 350	31 623	31 204
Land improvements	*3*	1 130	1 204	1 126	989
Farm building	*4*	5 115	5 032	4 790	4 542
Horses	*5*	148	205	177	124
Cattle	*6*	2 580	3 076	2 169	2 798
Hogs	*7*	1 614	1 150	784	1 621
Sheep	*8*	301	392	37	248
Poultry	*9*	178	176	409	292
Feed and grain	*10*	5 493	6 249	6 016	6 219
Machinery and equipment	*11*	3 004	3 325	3 139	2 916
Income, net increases, total	*12*	$13 778	$12 307	$10 819	$12 771
Cattle	*13*	1 558	1 975	1 101	1 900
Dairy sales	*14*	1 566	952	906	916
Hogs	*15*	4 736	3 055	1 820	4 273
Sheep	*16*	212	173	49	264
Poultry and eggs	*17*	584	607	1 675	995
Farm products used in household	*18*	432	400	400	465
Feed and grain	*19*	4 521	4 886	4 669	3 797
AAA payment	*20*	108	156	93	102
Labor and miscellaneous	*21*	61	103	106	59
Expenses, net decreases, total	*22*	$ 4 847	$ 4 317	$ 3 962	$ 4 755
Land improvements	*23*	258	306	274	288
Farm buildings	*24*	466	365	395	364
Feed and grain	*25*	717	229	244	715
Machinery and equipment	*26*	1 788	1 823	1 790	1 772
Hired labor	*27*	823	874	637	847
Taxes	*28*	540	488	380	498
Livestock and miscellaneous	*29*	255	232	242	271
Receipts less expenses	*30*	$ 8 931	$ 7 990	$ 6 857	$ 8 016
Unpaid labor	*31*	1 675	1 683	1 561	1 716
Net farm earnings	*32*	$ 7 256	$ 6 307	$ 5 296	$ 6 300
Rate earned on investment, percent	*33*	14.9	11.4	10.5	12.4
Labor and management earnings	*34*	$ 6 206	$ 4 867	$ 4 111	$ 5 099
Excess of sales over expenses	*35*	7 424	6 687	6 037	6 678
Increase in inventory	*36*	1 075	903	420	873
Number of farms included	*37*	71	64	64	71
Size of farm, acres	*38*	242	298	243	240
Gross earnings per acre	*39*	$ 56.91	$ 41.23	$ 44.54	$ 53.16
Total expenses per acre	*40*	26.94	20.10	22.74	26.94
Net earnings per acre	*41*	$ 29.97	$ 21.13	$ 21.80	$ 26.22
Value of land per acre	*42*	$121	$115	$130	$130
Value of improved land per acre	*43*	128	117	132	137
Value of buildings per acre	*44*	21.13	16.86	19.72	18.91
Total investment per acre	*45*	202	185	207	212
Percent of land area tillable	*46*	86.3	93.7	92.7	89.0
Percent of tillable land in:					
Corn	*47*	40.4	41.1	44.7	45.5
Oats	*48*	16.4	22.9	22.6	21.6
Wheat	*49*	4.1	.4	.8	.4
Soybeans for grain	*50*	17.3	13.2	12.5	9.3
Other cultivated crops	*51*	.5	2.4	.5	.5
Hay and pasture	*52*	21.3	20.0	18.9	22.7
Bushels per acre: Corn	*53*	61.8	47.3	51.0	55.0
Oats	*54*	56.3	43.8	44.5	54.1
Wheat	*55*	24.5	29.2	33.3	22.5
Soybeans	*56*	25.5	20.0	21.5	25.4
Feed fed per acre	*57*	$ 25.32	$ 17.61	$ 17.23	$ 33.90
Returns for $100 feed fed	*58*	147	135	140	137
Number of litters farrowed	*59*	23	17	13	22
Returns per litter	*60*	$239	$207	$222	$229
Dairy returns per cow	*61*	261	206	195	200
Egg returns per hen	*62*	4.21	3.39	5.94	4.48
Power and machinery cost per crop acre	*63*	$ 10.37	$ 8.23	$ 9.63	$ 10.07
Labor cost per crop acre	*64*	13.31	10.42	10.92	13.50
Land improvements cost per acre	*65*	1.07	1.03	1.13	1.20
Farm buildings cost per acre	*66*	1.92	1.22	1.63	1.52
Taxes per acre	*67*	2.23	1.63	1.56	2.07

(*Continued*)

TABLE 14.—SUMMARY OF BUSINESS RECORDS FROM 2,917 ILLINOIS FARMS BY COUNTIES AND BY GROUPS OF COUNTIES, 1945—*Continued*

	LaSalle	Champaign	Iroquois	Vermilion	Macon	DeWitt	Douglas, Piatt	Sangamon
1	$61 276	$53 324	$45 423	$54 775	$53 038	$50 943	$59 581	$56 228
2	35 384	35 501	27 130	35 611	36 439	33 553	40 632	37 832
3	1 254	799	1 197	1 340	1 029	799	1 390	1 224
4	7 257	5 218	5 400	4 978	4 193	4 542	4 748	5 235
5	111	74	161	96	138	63	116	152
6	3 624	2 176	2 526	2 466	2 403	3 110	2 403	2 922
7	1 710	757	1 103	1 089	895	1 109	1 104	2 007
8	155	108	81	86	23	114	30	59
9	192	142	167	145	161	129	155	126
10	7 950	5 494	4 535	5 559	4 226	4 160	5 250	3 362
11	3 639	3 055	3 123	3 405	3 531	3 364	3 753	3 309
12	$13 866	$13 538	$10 932	$14 387	$12 541	$13 374	$15 288	$14 215
13	2 416	1 251	1 102	1 553	1 436	1 849	1 171	2 066
14	1 404	950	1 280	1 001	647	920	544	1 014
15	4 506	1 984	2 724	3 252	1 956	2 279	2 918	4 567
16	109	150	90	141	23	57	50	64
17	539	587	664	620	623	495	654	467
18	458	380	429	428	457	499	466	478
19	4 201	8 064	4 431	7 101	7 237	7 113	9 213	5 347
20	114	117	116	160	90	94	150	128
21	119	55	96	131	72	68	122	84
22	$ 5 576	$ 4 199	$ 4 189	$ 5 765	$ 4 155	$ 3 708	$ 4 883	$ 5 326
23	471	288	362	659	243	267	314	331
24	611	459	431	522	315	316	396	488
25	679	92	196	187	117	.....	154	360
26	2 021	1 917	1 752	2 164	1 968	1 832	2 150	2 210
27	1 027	702	735	1 418	740	578	1 068	1 098
28	428	533	459	565	497	490	560	507
29	339	208	254	250	275	225	241	332
30	$ 8 290	$ 9 339	$ 6 743	$ 8 622	$ 8 386	$ 9 666	$10 405	$ 8 889
31	1 757	1 552	1 639	1 550	1 685	1 744	1 665	1 777
32	$ 6 533	$ 7 787	$ 5 104	$ 7 072	$ 6 701	$ 7 922	$ 8 740	$ 7 112
33	10.7	14.6	11.2	12.9	12.6	15.6	14.7	12.6
34	$ 4 811	$ 6 436	$ 4 149	$ 5 716	$ 5 438	$ 6 737	$ 7 181	$ 5 656
35	8 532	7 444	4 731	6 815	6 359	7 528	8 259	5 536
36	−700	1 514	1 583	1 379	1 570	1 639	1 680	2 875
37	54	72	63	49	47	30	47	52
38	278	276	245	308	272	275	301	314
39	$ 49.90	$ 48.99	$ 44.58	$ 46.71	$ 46.12	$ 48.58	$ 50.74	$ 45.33
40	26.39	20.81	23.76	23.75	21.48	19.80	21.73	22.65
41	$ 23.51	$ 28.18	$ 20.82	$ 22.96	$ 24.64	$ 28.78	$ 29.01	$ 22.68
42	$127	$128	$111	$116	$134	$122	$135	$121
43	134	131	114	120	137	131	138	127
44	26.11	18.89	22.02	16.16	15.42	16.50	15.76	16.69
45	220	193	186	178	195	185	198	179
46	87.7	93.0	90.2	92.2	92.7	86.7	91.6	88.5
47	48.7	37.9	39.6	35.2	34.6	38.6	36.3	29.4
48	23.5	14.5	17.1	11.7	9.5	14.1	14.1	11.0
49	.5	1.9	.9	3.8	1.3	....	2.5	6.4
50	6.8	29.9	18.3	28.8	37.1	29.5	32.2	31.9
51	.4	.1	4.4	3.0	.4	....	.4	.7
52	20.1	15.7	19.7	17.5	17.1	17.8	14.5	20.6
53	49.5	60.5	51.4	56.3	59.6	63.4	62.7	59.8
54	59.7	51.7	46.0	47.7	59.0	60.4	52.9	58.1
55	33.8	27.0	26.7	30.4	38.2	....	28.6	22.9
56	24.4	22.9	23.1	22.6	22.3	24.6	24.7	23.2
57	$ 23.68	$ 14.43	$ 19.46	$ 16.91	$ 14.44	$ 16.44	$ 14.77	$ 20.51
58	142	131	130	133	128	132	128	133
59	27	11	16	15	12	14	16	22
60	$212	$223	$216	$225	$211	$187	$226	$197
61	228	185	207	200	179	201	151	207
62	4.00	4.15	4.16	4.32	3.75	3.26	3.73	3.56
63	$ 9.88	$ 8.48	$ 9.83	$ 9.01	$ 9.22	$ 8.90	$ 8.68	$ 9.98
64	12.56	9.53	11.99	11.45	10.66	10.80	10.58	12.02
65	1.69	1.04	1.48	2.14	.89	.97	1.04	1.06
66	2.20	1.66	1.76	1.69	1.16	1.15	1.31	1.56
67	1.54	1.93	1.87	1.83	1.83	1.78	1.86	1.62

(Continued)

TABLE 14.—SUMMARY OF BUSINESS RECORDS FROM 2,917 ILLINOIS FARMS BY COUNTIES AND BY GROUPS OF COUNTIES, 1945—*Continued*

Accounting Item		Kankakee	Logan	Menard	Will
Capitol investment, total	*1*	$45 269	$53 638	$48 452	$42 098
Land	*2*	26 115	35 081	30 286	23 302
Land improvements	*3*	1 274	927	732	1 050
Farm building	*4*	5 566	4 975	5 417	5 529
Horses	*5*	92	186	154	133
Cattle	*6*	2 522	2 829	3 473	3 393
Hogs	*7*	665	1 211	1 747	548
Sheep	*8*	97	106	55	20
Poultry	*9*	192	199	135	228
Feed and grain	*10*	5 510	4 931	3 601	4 923
Machinery and equipment	*11*	3 236	3 193	2 852	2 972
Income, net increases, total	*12*	$11 997	$12 944	$11 814	$11 402
Cattle	*13*	1 013	1 431	1 337	2 043
Dairy sales	*14*	2 797	466	501	2 359
Hogs	*15*	2 114	3 011	3 978	1 524
Sheep	*16*	17	95	77	11
Poultry and eggs	*17*	700	638	595	768
Farm products used in household	*18*	369	469	382	445
Feed and grain	*19*	4 822	6 642	4 788	4 105
AAA payment	*20*	105	129	106	83
Labor and miscellaneous	*21*	60	63	50	64
Expenses, net decreases, total	*22*	$ 4 873	$ 3 987	$ 4 236	$ 4 154
Land improvements	*23*	716	209	220	315
Farm buildings	*24*	559	330	362	393
Feed and grain	*25*	295	114	408	224
Machinery and equipment	*26*	1 923	1 986	1 722	1 709
Hired labor	*27*	761	597	830	960
Taxes	*28*	362	532	482	284
Livestock and miscellaneous	*29*	257	219	212	269
Receipts less expenses	*30*	$ 7 124	$ 8 957	$ 7 578	$ 7 248
Unpaid labor	*31*	1 864	1 852	1 755	1 694
Net farm earnings	*32*	$ 5 260	$ 7 105	$ 5 823	$ 5 554
Rate earned on investment, percent	*33*	11.6	13.2	12.0	13.2
Labor and management earnings	*34*	$ 4 388	$ 5 801	$ 4 743	$ 4 882
Excess of sales over expenses	*35*	6 284	7 135	6 750	5 400
Increase in inventory	*36*	471	1 353	446	1 403
Number of farms included	*37*	46	49	28	47
Size of farm, acres	*38*	258	270	290	220
Gross earnings per acre	*39*	$ 46.57	$ 47.96	$ 40.72	$ 51.71
Total expenses per acre	*40*	26.15	21.64	20.65	26.52
Net earnings per acre	*41*	$ 20.42	$ 26.32	$ 20.07	$ 25.19
Value of land per acre	*42*	$101	$130	$104	$106
Value of improved land per acre	*43*	103	132	111	109
Value of buildings per acre	*44*	21.61	18.43	18.67	25.07
Total investment per acre	*45*	176	199	167	191
Percent of land area tillable	*46*	92.9	93.1	87.2	88.5
Percent of tillable land in:					
Corn	*47*	41.5	36.8	34.8	41.8
Oats	*48*	17.2	16.5	13.2	21.6
Wheat	*49*	1.7	1.3	4.8	1.6
Soybeans for grain	*50*	20.1	27.9	29.1	14.0
Other cultivated crops	*51*	1.8	.7	1.3	2.3
Hay and pasture	*52*	17.7	16.8	16.8	18.7
Bushels per acre: Corn	*53*	49.1	63.6	55.2	52.1
Oats	*54*	44.4	55.4	50.7	60.6
Wheat	*55*	31.0	28.8	21.5	34.7
Soybeans	*56*	21.4	22.8	19.9	24.6
Feed fed per acre	*57*	$ 17.07	$ 16.73	$ 17.74	$ 21.09
Returns for $100 feed fed	*58*	157	134	132	151
Number of litters farrowed	*59*	16	16	24	8
Returns per litter	*60*	$229	$230	$196	$320
Dairy returns per cow	*61*	296	147	167	260
Egg returns per hen	*62*	4.12	4.01	4.37	5.06
Power and machinery cost per crop acre	*63*	$ 9.47	$ 9.69	$ 8.59	$ 10.37
Labor cost per crop acre	*64*	12.09	10.99	11.68	14.62
Land improvements cost per acre	*65*	2.78	.77	.76	1.43
Farm buildings cost per acre	*66*	2.17	1.22	1.25	1.78
Taxes per acre	*67*	1.41	1.97	1.66	1.29

(*Continued*)

TABLE 14.—SUMMARY OF BUSINESS RECORDS FROM 2,917 ILLINOIS FARMS BY COUNTIES AND BY GROUPS OF COUNTIES, 1945—*Continued*

	Kendall	Edgar, Coles	Moultrie	Mason	Cass	Grundy	Morgan	Montgomery, Macoupin
1	$53 654	$52 324	$52 890	$33 692	$44 788	$51 839	$45 662	$27 112
2	27 365	34 590	38 036	22 379	27 832	30 414	29 135	13 760
3	1 247	1 035	653	446	798	1 169	763	827
4	7 477	4 256	3 712	2 963	3 709	5 378	3 840	3 369
5	161	160	106	131	235	147	202	177
6	5 080	2 371	1 748	1 241	2 853	2 875	2 747	1 945
7	2 354	1 218	535	662	1 673	1 051	1 986	1 210
8	222	47	26	7	35	20	128	112
9	260	173	122	141	133	188	159	146
10	6 413	5 420	4 720	3 087	4 672	6 938	4 140	3 199
11	3 075	3 054	3 232	2 635	2 848	3 659	2 562	2 372
12	$13 835	$12 738	$12 925	$ 8 214	$12 057	$13 758	$12 711	$ 9 219
13	2 559	1 495	1 031	626	2 372	1 655	1 957	1 284
14	2 017	776	1 124	406	377	2 241	515	1 763
15	6 283	3 771	1 175	1 705	4 246	3 049	4 586	3 417
16	133	93	22	6	44	18	169	104
17	1 136	584	420	676	548	667	640	521
18	417	500	370	407	472	363	411	387
19	1 040	5 294	8 596	4 201	3 821	5 646	4 263	1 579
20	100	126	116	108	110	80	109	98
21	150	99	71	79	67	39	61	66
22	$ 5 212	$ 4 475	$ 4 061	$ 2 910	$ 4 854	$ 4 036	$ 4 203	$ 4 056
23	329	327	238	170	311	511	283	293
24	615	362	281	229	318	429	342	333
25	898	326	1	97	1 013	61	399	1 087
26	1 739	1 881	2 002	1 359	1 810	1 772	1 715	1 438
27	902	882	800	502	728	626	775	441
28	382	491	540	418	445	371	443	277
29	347	206	199	135	229	266	246	187
30	$ 8 623	$ 8 263	$ 8 864	$ 5 304	$ 7 203	$ 9 722	$ 8 508	$ 5 163
31	1 939	1 672	1 783	1 764	1 925	1 953	1 766	1 750
32	$ 6 684	$ 6 591	$ 7 081	$ 3 540	$ 5 278	$ 7 769	$ 6 742	$ 3 413
33	12.5	12.6	13.4	10.5	11.8	15.0	14.8	12.6
34	$ 5 440	$ 5 381	$ 5 799	$ 3 170	$ 4 417	$ 6 623	$ 5 790	$ 3 283
35	9 088	7 393	7 938	4 266	6 255	9 903	5 878	4 566
36	−882	370	556	631	476	−544	2 219	210
37	32	46	47	25	33	20	44	44
38	226	298	316	323	323	287	277	212
39	$ 61.27	$ 42.67	$ 40.89	$ 25.45	$ 37.36	$ 47.98	$ 45.90	$ 43.42
40	31.67	20.59	18.49	14.48	21.00	20.89	21.55	27.34
41	$ 29.60	$ 22.08	$ 22.40	$ 10.97	$ 16.36	$ 27.09	$ 24.35	$ 16.08
42	$121	$116	$120	$ 69	$ 86	$106	$105	$ 65
43	125	123	128	75	103	113	116	72
44	33.11	14.26	11.74	9.18	11.49	18.76	13.87	15.87
45	238	175	167	104	139	181	165	128
46	89.9	87.6	88.2	85.9	75.2	84.6	83.3	82.1
47	48.2	32.5	31.5	30.5	45.6	44.0	33.6	21.2
48	23.0	10.4	8.8	11.3	11.9	20.5	10.4	7.8
49	1.2	5.7	1.6	21.5	8.0	1.6	9.5	14.2
50	4.3	27.6	39.9	9.4	13.6	15.3	27.7	29.1
51	.3	1.8	1.5	11.0	5.2	.3	.5	2.4
52	23.0	22.0	16.7	16.3	15.7	18.3	18.3	25.3
53	57.6	55.3	55.7	41.7	39.8	54.1	58.7	48.9
54	61.9	41.4	44.4	41.6	41.6	50.2	47.9	38.8
55	34.6	23.8	29.3	15.8	19.6	11.0	20.5	18.6
56	26.6	21.3	21.7	15.0	37.8	25.2	22.7	20.5
57	$ 38.64	$ 17.39	$ 8.67	$ 8.20	$ 18.06	$ 17.61	$ 21.61	$ 21.02
58	143	137	148	142	137	157	137	166
59	26	18	8	12	23	15	24	17
60	$217	$271	$206	$197	$194	$260	$228	$218
61	269	187	198	165	138	253	208	290
62	5.48	3.76	3.36	4.14	3.98	4.30	3.99	3.51
63	$ 10.24	$ 9.06	$ 8.38	$ 6.20	$ 9.71	$ 8.83	$ 9.36	$ 10.91
64	15.45	11.25	10.32	9.39	12.45	11.92	12.16	15.03
65	1.46	1.10	.75	.53	.96	1.78	1.02	1.38
66	2.72	1.21	.89	.71	.99	1.50	1.24	1.57
67	1.69	1.64	1.71	1.29	1.38	1.29	1.60	1.30

(*Continued*)

Table 14.—Summary of Business Records From 2,917 Illinois Farms by Counties and by Groups of Counties, 1945—*Continued*

Accounting Item		Christian, Shelby	Adams, Schuyler	Brown, Pike, Scott	Greene, Jersey
Capital investment, total	*1*	$34 585	$35 615	$35 952	$32 118
Land	*2*	20 236	18 345	19 757	17 165
Land improvements	*3*	948	1 003	848	940
Farm buildings	*4*	3 043	4 108	3 399	3 636
Horses	*5*	116	252	353	262
Cattle	*6*	2 786	2 762	3 211	2 351
Hogs	*7*	821	1 632	2 117	1 103
Sheep	*8*	43	70	222	14
Poultry	*9*	176	122	88	142
Feed and grain	*10*	3 514	4 304	3 845	3 789
Machinery and equipment	*11*	2 902	3 017	2 112	2 716
Income, net increases, total	*12*	$ 9 328	$ 9 192	$12 335	$ 9 429
Cattle	*13*	1 305	2 062	2 954	1 374
Dairy sales	*14*	1 133	725	358	2 245
Hogs	*15*	2 710	4 873	6 717	3 090
Sheep	*16*	39	70	193	22
Poultry and eggs	*17*	665	396	249	487
Farm products used in household	*18*	320	382	391	433
Feed and grain	*19*	2 992	470	1 298	1 609
AAA payment	*20*	97	142	139	94
Labor and miscellaneous	*21*	67	72	36	75
Expenses, net decreases, total	*22*	$ 3 458	$ 4 589	$ 6 022	$ 4 304
Land improvements	*23*	268	356	221	279
Farm buildings	*24*	253	327	344	319
Feed and grain	*25*	297	1 187	2 730	877
Machinery and equipment	*26*	1 555	1 411	1 327	1 430
Hired labor	*27*	553	738	772	839
Taxes	*28*	352	372	399	354
Livestock and miscellaneous	*29*	180	198	229	206
Receipts less expenses	*30*	$ 5 870	$ 4 603	$ 6 313	$ 5 125
Unpaid labor	*31*	1 604	1 809	1 675	1 763
Net farm earnings	*32*	$ 4 266	$ 2 794	$ 4 638	$ 3 362
Rate earned on investment, percent	*33*	12.3	7.8	12.9	10.5
Labor and management earnings	*34*	$ 3 808	$ 2 217	$ 4 114	$ 2 978
Excess of sales over expenses	*35*	6 096	5 086	5 774	4 700
Increase in inventory	*36*	−546	−865	148	−8
Number of farms included	*37*	35	30	24	47
Size of farm, acres	*38*	243	309	351	270
Gross earnings per acre	*39*	$ 38.34	$ 29.78	$ 35.10	$ 34.86
Total expenses per acre	*40*	20.81	20.73	21.90	22.43
Net earnings per acre	*41*	$ 17.53	$ 9.05	$ 13.20	$ 12.43
Value of land per acre	*42*	$ 83	$ 59	$ 56	$ 63
Value of improved land per acre	*43*	88	69	70	72
Value of buildings per acre	*44*	12.51	13.31	9.67	13.44
Total investment per acre	*45*	142	115	102	119
Percent of land area tillable	*46*	88.2	74.2	63.3	75.2
Percent of tillable land in:					
Corn	*47*	26.5	24.9	31.6	28.7
Oats	*48*	7.9	14.6	12.0	6.3
Wheat	*49*	5.1	7.8	11.4	14.1
Soybeans for grain	*50*	35.6	16.6	8.3	19.6
Other cultivated crops	*51*	1.2	2.9	6.4	3.8
Hay and pasture	*52*	23.7	33.2	30.3	27.5
Bushels per acre: Corn	*53*	48.4	38.1	50.2	44.5
Oats	*54*	34.6	25.3	29.0	33.7
Wheat	*55*	24.2	19.9	21.1	17.1
Soybeans	*56*	19.0	16.1	19.9	18.4
Feed fed per acre	*57*	$ 16.12	$ 17.15	$ 20.37	$ 16.25
Returns for $100 feed fed	*58*	156	159	151	172
Number of litters farrowed	*59*	15	24	38	18
Returns per litter	*60*	$217	$223	$207	$199
Dairy returns per cow	*61*	184	119	188	230
Egg returns per hen	*62*	3.77	3.11	2.96	3.67
Power and machinery cost per crop acre	*63*	$ 9.27	$ 9.63	$ 9.85	$ 10.45
Labor cost per crop acre	*64*	11.65	14.85	14.90	16.18
Land improvements cost per acre	*65*	1.10	1.15	.63	1.03
Farm buildings cost per acre	*66*	1.04	1.06	.98	1.18
Taxes per acre	*67*	1.45	1.21	1.14	1.31

(*Continued*)

TABLE 14.—SUMMARY OF BUSINESS RECORDS FROM 2,917 ILLINOIS FARMS BY COUNTIES AND BY GROUPS OF COUNTIES, 1945—*Continued*

	Madison	Randolph	St. Clair, Monroe	Bond, Clinton	Washington	Fayette, Effingham	Jefferson, Hamilton, Franklin, Williamson, Perry	Jasper, Clark, Crawford
1	$21 235	$19 323	$27 152	$23 126	$18 560	$16 407	$14 619	$24 482
2	10 477	8 426	14 826	11 905	10 331	7 612	7 572	12 558
3	399	715	418	601	506	589	596	751
4	2 559	2 711	3 131	2 724	1 971	1 971	1 503	2 646
5	208	237	347	173	219	187	160	137
6	1 902	1 685	1 638	1 912	1 195	1 489	1 247	1 626
7	452	502	639	610	305	301	382	1 199
8	15	64	37	69	59	80	53	27
9	182	188	225	194	190	248	137	221
10	2 413	2 674	3 234	2 415	1 874	2 035	1 483	3 271
11	2 628	2 121	2 657	2 523	1 910	1 895	1 486	2 046
12	$ 7 476	$ 5 890	$ 7 074	$ 8 316	$ 5 419	$ 5 529	$ 4 290	$ 7 623
13	709	790	547	715	477	642	856	1 116
14	3 405	1 721	2 044	3 184	1 920	1 570	660	599
15	1 399	1 535	1 786	1 996	709	1 015	999	3 230
16	18	100	30	63	63	107	91	35
17	730	708	958	721	787	940	535	878
18	401	401	479	447	354	367	382	471
19	664	434	1 062	1 034	906	754	613	1 151
20	95	137	112	118	167	109	117	122
21	55	64	56	38	36	25	37	21
22	$ 3 199	$ 3 012	$ 3 098	$ 4 059	$ 2 040	$ 2 721	$ 2 406	$ 3 444
23	238	280	184	270	260	349	378	364
24	251	231	248	257	164	219	159	207
25	810	750	569	1 351	32	504	390	898
26	1 224	1 087	1 240	1 305	973	987	945	1 272
27	297	332	402	471	269	325	287	304
28	196	180	274	230	179	185	142	250
29	183	152	181	175	163	152	105	149
30	$ 4 277	$ 2 878	$ 3 976	$ 4 257	$ 3 379	$ 2 808	$ 1 884	$ 4 179
31	2 341	1 647	1 982	1 779	1 885	1 615	1 303	1 644
32	$ 1 936	$ 1 231	$ 1 994	$ 2 478	$ 1 494	$ 1 193	$ 581	$ 2 535
33	9.1	6.4	7.3	10.7	8.0	7.3	4.0	10.4
34	$ 2 153	$ 1 412	$ 1 871	$ 2 431	$ 1 693	$ 1 506	$ 821	$ 2 576
35	3 767	3 097	4 294	3 685	3 025	2 251	1 322	4 126
36	109	−620	−797	125	0	190	180	−418
37	55	50	47	39	26	36	42	40
38	198	234	227	251	228	228	251	298
39	$ 37.83	$ 25.14	$ 31.19	$ 33.13	$ 23.73	$ 24.27	$ 17.08	$ 25.56
40	28.03	19.89	22.40	23.26	17.19	19.03	14.77	17.06
41	$ 9.80	$ 5.25	$ 8.79	$ 9.87	$ 6.54	$ 5.24	$ 2.31	$ 8.50
42	$ 53	$ 36	$ 65	$ 47	$ 45	$ 33	$ 30	$ 42
43	56	39	72	51	49	37	32	46
44	12.95	11.57	13.81	10.85	8.63	8.65	5.99	8.87
45	107	82	120	92	81	72	58	82
46	85.4	82.2	83.6	80.8	81.3	78.0	86.1	80.7
47	22.3	12.3	19.7	17.2	11.7	15.0	10.1	23.0
48	5.7	6.5	7.8	11.2	10.7	9.1	3.1	3.9
49	23.6	25.5	28.6	19.7	32.4	10.2	19.5	11.8
50	9.8	6.3	9.0	15.4	7.5	20.6	4.5	15.4
51	3.1	17.1	7.7	10.7	9.9	12.1	14.0	13.3
52	35.5	32.3	27.2	25.8	27.8	33.0	48.8	32.6
53	37.4	36.3	40.1	27.2	29.2	33.2	37.6	39.4
54	27.7	22.0	24.5	29.7	20.6	24.9	13.5	19.6
55	20.8	15.1	18.7	21.2	18.1	22.9	14.4	18.1
56	13.3	10.2	17.5	12.5	12.1	14.1	11.0	16.4
57	$ 18.87	$ 13.01	$ 16.16	$ 16.59	$ 10.41	$ 12.13	$ 8.01	$ 15.14
58	176	169	157	169	178	164	172	138
59	9	8	11	10	6	7	6	16
60	$213	$252	$234	$216	$203	$235	$198	$229
61	267	209	230	239	212	208	192	172
62	3.79	3.82	4.20	3.42	3.95	3.50	3.42	4.03
63	$ 10.78	$ 9.88	$ 10.20	$ 9.29	$ 7.90	$ 9.04	$ 9.48	$ 8.53
64	19.80	15.31	16.05	13.81	14.78	15.10	14.05	11.85
65	1.20	1.20	.81	1.08	1.14	1.53	1.51	1.22
66	1.27	.99	1.09	1.02	.72	.96	.63	.69
67	.99	.77	1.21	.92	.78	.81	.57	.84

(*Continued*)

TABLE 14.—SUMMARY OF BUSINESS RECORDS FROM 2,917 ILLINOIS FARMS BY COUNTIES AND BY GROUPS OF COUNTIES, 1945—*Concluded*

Accounting Item		Clay, Richland, Wayne, Marion	Edwards	Gallatin, White, Wabash, Lawrence, Saline	Massac, Jackson, Johnson, Pope, Hardin
Capital investment, total	*1*	$16 003	$17 025	$23 517	$12 907
Land	*2*	8 040	8 882	13 248	6 256
Land improvements	*3*	743	678	726	356
Farm buildings	*4*	1 950	1 660	2 878	1 348
Horses	*5*	186	190	204	363
Cattle	*6*	1 734	1 118	1 585	1 422
Hogs	*7*	293	594	627	373
Sheep	*8*	131	79	......	103
Poultry	*9*	166	207	149	174
Feed and grain	*10*	1 372	1 978	2 407	1 441
Machinery and equipment	*11*	1 388	1 639	1 693	1 071
Income, net increases, total	*12*	$ 4 170	$ 5 967	$ 6 967	$ 4 254
Cattle	*13*	831	863	761	766
Dairy sales	*14*	684	229	674	757
Hogs	*15*	866	2 248	2 068	968
Sheep	*16*	165	75	......	105
Poultry and eggs	*17*	559	789	459	525
Farm products used in household	*18*	352	381	397	404
Feed and grain	*19*	594	1 217	2 472	597
AAA payment	*20*	97	144	100	92
Labor and miscellaneous	*21*	22	21	36	40
Expenses, net decreases, total	*22*	$ 2 402	$ 2 326	$ 3 015	$ 1 593
Land improvements	*23*	351	438	347	168
Farm buildings	*24*	188	129	224	120
Feed and grain	*25*	409	320	245	166
Machinery and equipment	*26*	934	876	1 333	699
Hired labor	*27*	201	244	503	191
Taxes	*28*	195	215	249	154
Livestock and miscellaneous	*29*	124	104	114	95
Receipts less expenses	*30*	$ 1 768	$ 3 641	$ 3 952	$ 2 661
Unpaid labor	*31*	1 278	1 342	1 454	1 331
Net farm earnings	*32*	$ 490	$ 2 299	$ 2 498	$ 1 330
Rate earned on investment, percent	*33*	3.1	13.5	10.6	10.3
Labor and management earnings	*34*	$ 660	$ 2 476	$ 2 300	$ 1 653
Excess of sales over expenses	*35*	1 395	2 626	2 396	1 729
Increase in inventory	*36*	21	634	1 159	528
Number of farms included	*37*	61	44	33	33
Size of farm, acres	*38*	286	232	252	237
Gross earnings per acre	*39*	$ 14.61	$ 25.68	$ 27.65	$ 17.92
Total expenses per acre	*40*	12.89	15.79	17.74	12.32
Net earnings per acre	*41*	$ 1.72	$ 9.89	$ 9.91	$ 5.60
Value of land per acre	*42*	$ 28	$ 38	$ 53	$ 26
Value of improved land per acre	*43*	31	41	56	33
Value of buildings per acre	*44*	6.83	7.15	11.42	5.68
Total investment per acre	*45*	56	73	93	54
Percent of land area tillable	*46*	83.4	82.0	86.4	69.6
Percent of tillable land in:					
Corn	*47*	9.6	20.4	28.9	17.1
Oats	*48*	4.9	3.7	1.1	2.8
Wheat	*49*	11.9	21.6	15.8	9.4
Soybeans for grain	*50*	8.9	5.5	7.0	4.5
Other cultivated crops	*51*	16.0	14.7	16.1	8.8
Hay and pasture	*52*	48.7	34.1	31.1	57.4
Bushels per acre: Corn	*53*	25.6	51.8	45.2	40.7
Oats	*54*	18.6	24.9	15.8	13.4
Wheat	*55*	17.3	15.8	16.6	16.3
Soybeans	*56*	9.6	18.4	14.3	16.8
Feed fed per acre	*57*	$ 7.92	$ 12.21	$ 11.18	$ 7.78
Returns for $100 feed fed	*58*	149	159	152	186
Number of litters farrowed	*59*	5	12	10	6
Returns per litter	*60*	$184	$216	$233	$190
Dairy returns per cow	*61*	172	141	169	166
Egg returns per hen	*62*	3.42	3.96	3.15	3.21
Power and machinery cost per crop acre	*63*	$ 7.61	$ 8.21	$ 10.03	$ 10.56
Labor cost per crop acre	*64*	10.23	12.35	13.03	17.76
Land improvements cost per acre	*65*	1.23	1.89	1.38	.71
Farm buildings cost per acre	*66*	.66	.56	.89	.51
Taxes per acre	*67*	.68	.93	.99	.65

Footnotes for the last page:

[1-12] The first source is for annual data; the second is for current data from which tables may be brought to date.

[1] Survey of Current Business, 1936 supplement, U. S. Department of Commerce; Subsequent monthly issues. [2] Same as footnote 1. [3] Illinois Crop and Livestock Statistics, Circular 438 (1937); monthly mimeographs of Statistical Tables for Illinois Crop Report, converted from 1910-1914 = 100 to 1935-1939 = 100 by multiplying by .8946. [4] Agricultural Prices, Bureau of Agricultural Economics, U.S.D.A. [5] Calculated from data furnished by Bureau of Agricultural Economics; Survey of Current Business, seasonally adjusted. [6] Calculated by Department of Agricultural Economics, University of Illinois, seasonally adjusted. Data on receipts from sale of principal farm products (government payments not included) from Farm Income Situation, Bureau of Agricultural Economics monthly mimeograph. [7] Obtained by dividing Index of Illinois Farm Income (column 6) by Index of Prices Paid by Farmers (column 4). [8] For 1929-1942 inclusive, from special mimeographed release by Bureau of Agricultural Economics, currently, not adjusted for seasonal variation from Poultry and Egg Situation, beginning with March, 1943, issue. [9] Survey of Current Business, December, 1942, and subsequent monthly issues, unadjusted for seasonal variation. Prior to 1939, "factory payroll" index, with 1923-1925 base, multiplied by [illegible] to obtain the "Weekly Wages" index with 1939 base. [10] Federal Reserve Bulletin of Federal Reserve Board, September, 1933, and subsequent issues; Survey of Current Business, seasonally adjusted. [11] Preliminary estimate. [12] Illinois Crop and Livestock Statistics, Circular 438, Monthly press releases, State Agricultural Statistician.

UNIVERSITY OF ILLINOIS
COLLEGE OF AGRICULTURE
URBANA, ILLINOIS

H. P. Rusk

*Director, Extension Service in
Agriculture and Home Economics*

FREE—Cooperative Agricultural Extension
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TABLE A. — INDEXES OF UNITED STATES AGRICULTURAL AND BUSINESS CONDITIONS

Year and month	Commodity prices				Income from farm marketings			Non-agricultural income payments[8]	Weekly wages, all manufacturing industries, unadjusted[9]	Industrial production[10]
	Wholesale prices		Illinois farm prices[3]	Prices paid by farmers[4]	U. S. in money[5]	Illinois				
	All commodities[1]	Farm products[2]				In money[6]	In purchasing power[7]			
Base period..	1926	1926	1935-39	1935-39	1935-39	1935-39	1935-39	1935-39	1939	1935-39
1931........	73	65	77	110	84	77	71	95	74	75
1932........	65	48	52	96	60	57	60	73	51	58
1933........	66	51	56	94	62	68	75	70	54	69
1934........	75	65	76	100	73	73	74	80	70	75
1935........	80	79	103	101	90	86	85	86	80	87
1936........	81	81	107	100	104	109	110	101	93	103
1937........	86	86	120	104	108	116	112	107	111	113
1938........	79	69	87	98	99	107	109	90	85	89
1939........	77	65	81	97	99	107	110	106	100	109
1940........	78	68	86	98	107	114	116	115	114	125
1941........	87	82	109	103	142	146	140	138	168	162
1942........	99	105	140	117	197	200	169	171	245	199
1943........	103	123	166	127	251	243	191	209	330	239
1944........	104	124	168	132	265	249	189	231	346	236
1945........	106	128	171	136	283	246	180	236	288	203
1945 June...	106	130	173	135	287	227	168	241	315	220
July....	106	129	172	135	282	208	154	240	299	210
Aug....	106	127	171	135	274	201	140	233	267	187
Sept....	105	124	169	136	256	192	141	227	224	169
Oct.....	106	127	169	137	261	346	253	230	223	162
Nov....	107	131	170	137	282	332	242	232	223	168
Dec....	107	132	171	138	282	256	186	231	226	164
1946 Jan.....	107	130	170	138	281	231	167	229	229	160
Feb....	108	131[11]	172	139	305	240	173	226	210	152
Mar....	109	133	175	140	285	246	176	230	233	168
Apr.....	110	135	177	141	273	...	...	233	249	164
May...	111	138	186	144	...	...	...	233	246	159[11]
June...	112	140	186	146	...	...	...	...	...	170[11]

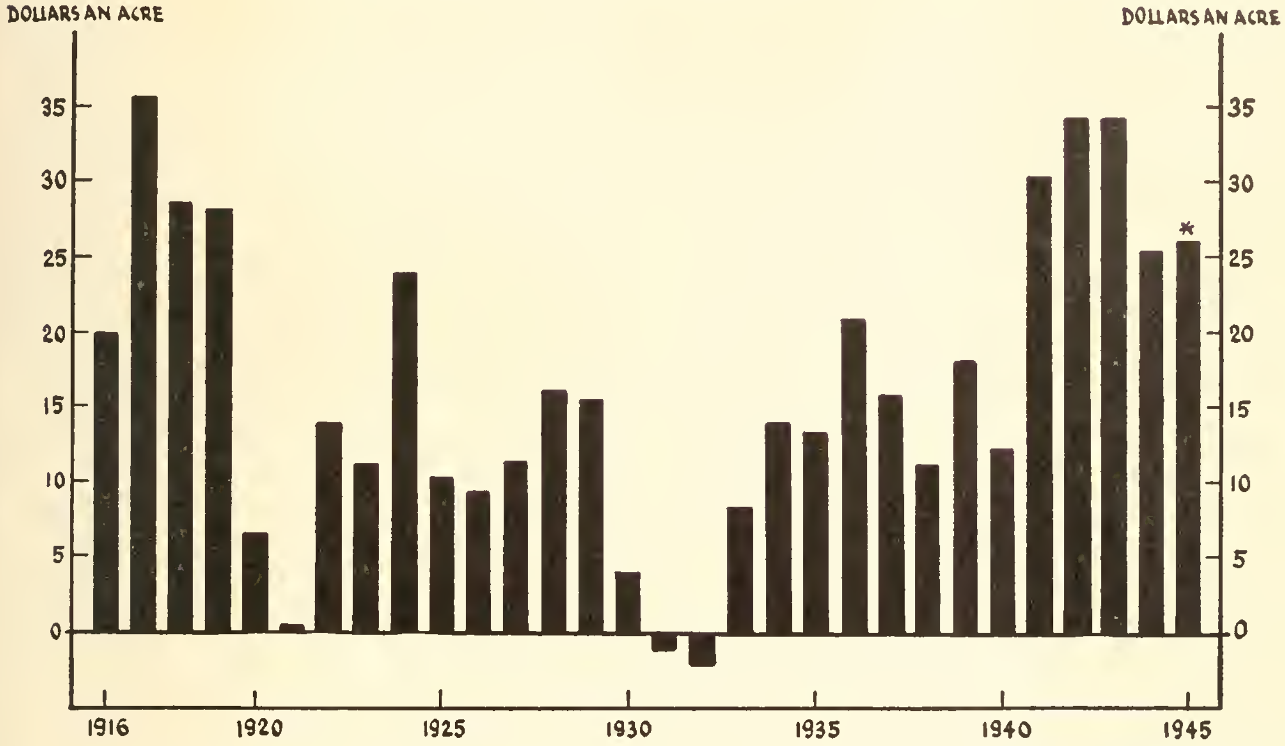
TABLE B. — PRICES OF ILLINOIS FARM PRODUCTS[12]

Product	Calendar year average			July 1945	Current months		
	1935-39	1944	1945		May	June	July
Corn, bu...........	$ .66	$1.07	$1.07	$1.08	$1.35	$1.36	$2.05
Oats, bu............	.31	.74	.68	.64	.81	.81	.81
Wheat, bu..........	.86	1.54	1.58	1.54	1.81	1.82	1.97
Barley, bu..........	.62	1.16	1.09	1.05	1.26	1.26	1.35
Soybeans, bu........	.90	1.91	2.09	2.10	2.10	2.10	2.30
Hogs, cwt..........	8.52	13.47	14.25	14.20	14.50	14.40	17.60
Beef cattle, cwt.....	7.88	11.89	13.12	14.70	14.90	15.00	18.30
Lambs, cwt.........	8.36	13.52	13.77	14.40	14.80	15.00	17.00
Milk cows, head....	58.00	124.50	125.50	125.00	139.00	142.00	153.00
Veal calves, cwt.....	8.66	13.32	14.22	14.80	14.80	15.80	17.70
Sheep, cwt..........	3.58	5.67	6.38	7.10	6.70	6.80	8.20
Butterfat, lb........	.27	.49	.48	.48	.48	.49	.69
Milk, cwt..........	1.68	3.02	2.95	2.85	3.00	3.20	3.35
Eggs, doz..........	.19	.31	.35	.33	.30	.30	.31
Chickens, lb........	.15	.24	.25	.28	.25	.26	.30
Wool, lb............	.25	.42	.44	.45	.43	.43	.44
Apples, bu..........	1.08	3.11	2.99	2.80	4.30	3.05	3.60
Hay, ton...........	9.39	17.65	17.72	17.00	14.50	14.50	13.50
Potatoes, bu........	.91	1.83	2.06	2.55	1.70	1.70	1.85

[1-12] For sources of data in tables see previous page.

Cooperative Extension Work in Agriculture and Home Economics: University of Illinois, College of Agriculture, and the United States Department of Agriculture cooperating. H. P. Rusk, Director. Acts approved by Congress May 8 and June 30, 1914.

YOUR FARM BUSINESS REPORT 1945



**Estimate for 1945*

NET EARNINGS AN ACRE, EAST CENTRAL ILLINOIS ACCOUNTING FARMS, 1916-1945

Net farm earnings an acre from 1916 through 1945 varied from a gain of $35.51 in 1917 to a loss of $1.96 in 1932. Following World War I, earnings remained relatively high for almost two years, then dropped precipitously in 1920 and in 1921. For further information on long-time changes in earnings of Illinois accounting farms, see the inside back cover of this report.

FARMING-TYPE AREA ONE

Chicago Dairy Area

NAME______________________________________

DEPARTMENT OF AGRICULTURAL ECONOMICS, UNIVERSITY OF ILLINOIS
COLLEGE OF AGRICULTURE, EXTENSION SERVICE IN AGRICULTURE AND HOME ECONOMICS
URBANA, ILLINOIS

AE-2385

UNIVERSITY *of* ILLINOIS
COLLEGE *of* AGRICULTURE
AGRICULTURAL EXPERIMENT STATION
URBANA, ILLINOIS

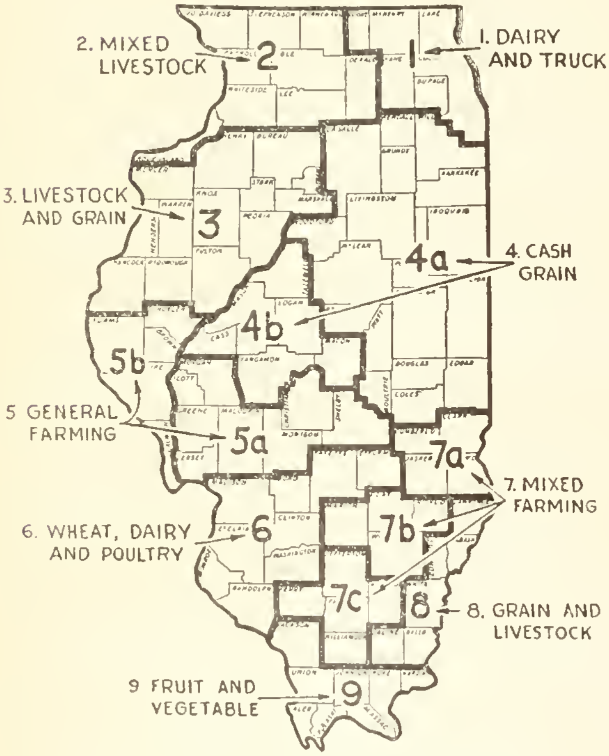
DEPARTMENT *of*
AGRICULTURAL ECONOMICS

Dear Cooperator:

This is the thirtieth annual report of farm account records kept by Illinois farmers enrolled in the farm accounting extension project conducted by this department. The earnings on farms, both during World War I and World War II, show some interesting comparisons which may well serve as a basis for anticipating a reduction in earnings during postwar years after deficits in food supplies have been made up.

The charts on the front and back cover pages of the report set forth the results from farm accounts in East Central Illinois. This is the only area of the state for which records were available for the entire 30-year period, but they are indicative of farm conditions throughout the state.

Of even greater importance to you than these results of the past 30 years, are the results from your own farm in comparison with the data from similar farms in your own section of the state, and with the data from your own farm in previous years.



THE NINE MAJOR TYPE-OF-FARMING AREAS IN ILLINOIS

Farm accounts have a number of uses among which are the following: First, the results from a group of farms serve as a standard or yardstick with which to measure your own accomplishments; second, analyzed over a period of years and studied in the light of existing economic conditions, they serve as a guide in planning for the future; and, third, in times of rapidly changing costs of production they serve as a guide for adjusting farm leases or father-son business agreements on an equitable basis.

The map on this page will identify the area for which this report is prepared.

We trust that this report will prove valuable to you.

Very truly yours,

H. C. M. CASE
Head of Department

Annual Farm Business Report

ONE HUNDRED THIRTY-SIX FARMS IN FARMING-TYPE AREA 1, 1945

J. B. Cunningham, Elmer N. Searls, and A. G. Mueller[1/]

Net farm earnings on accounting farms in Farming-Type Area 1 were somewhat higher in 1945 than in 1944. The average net earnings were $4,675 in 1945; $4,074 in 1944; $5,484 in 1943; $5,049 in 1942; and $4,333 in 1941 (Table 2). The items considered in calculating net earnings include cash balance, inventory change, value of farm products used in the household, and unpaid labor.

Accounting farms in 1945 showed an increase in cash balance over 1944 and also an increase in inventory; the value of farm products used in the household was the same for the two years; and the value of family and operator's labor was not significantly different in 1945 from that in 1944. In comparing charges for unpaid labor (family and operator's) in 1945 with those for previous years it should be noted that the value more than doubled from 1941 to 1945. This increase did not come from the use of more labor but because the average monthly wage rate in this area increased from $55 in 1941 to $145 in 1945.

The averages presented in this report provide a good local yardstick of efficiency. From tables 1 through 7, each cooperator may determine why his return for 1945 was above or below the average of other farms in the area. When efficiency factors are effected by size, source of income, value of improved land, or amount of feed fed, the records are sorted into groups with comparable conditions and averages are run for each group (Table 1). This practice permits you to compare your farm with others that are more similar to yours than is the entire group.

The accounting farms in this report were larger than the average of all the farms in the area; the crop yields were above average; and the farm operators were more skillful than average in the organization and operation of their farms. Therefore, the figures contained in this report represent conditions which are better than average for the area.

[1/] In cooperation with the county farm advisers and Farm Bureau Farm Management associations in the area (number indicates records from each county):

Boone	(17)	D. M. Chalcraft	Kane	(43)	A. C. Johnson
Cook	(5)	C. A. Hughes	Lake	(13)	Ray T. Nicholas
DuPage	(19)	H. S. Wright	McHenry	(41)	W. H. Tammeus

TABLE 1.--FACTORS USED TO ANALYZE THE FARM BUSINESS
Accounting Farms in Farming-Type Area 1, 1945

Item	Your farm	Standards for your farm	Average of 136 farms*
(Those capitalized used in chart on opposite page)			
RATE EARNED ON INVESTMENT	%	10.2 %	10.2 %
Labor and management earnings	$	$ c/	$3730
ACRES IN FARM		202	202
Acres in crops		146	146
GROSS EARNINGS PER ACRE	$	$ a/	$ 65.10
GROSS EXPENSE PER ACRE			41.96
Net earnings per acre	$	$	$ 23.14
Investments			
Value of improved land per acre	$	$ a/	$ 103
Total investment per acre			226
Land use			
Percent of land area tillable		a/	83.1
Percent of tillable land in:			
Corn		a/	41.4
Oats			22.7
Wheat			.4
Soybeans for grain			3.8
HAY AND PASTURE (incl. cl. & gr. seed crops)			29.6
Other crops (includes idle tillable land)			2.1
Crop yields			
CORN, BU		a/	50.9
OATS, BU			67.4
WHEAT, BU			27.1
SOYBEANS, BU			24.6
Livestock factors			
FEED FED PER ACRE TO PRODUCTIVE LIVESTOCK	$	$ b/	$ 39.96
RETURNS PER $100 FEED FED			147.
Number of cows milked			25.4 e/
DAIRY RETURNS PER COW MILKED	$	$	$ 289
Number of litters farrowed			16 f/
NUMBER OF PIGS WEANED PER LITTER			5.8
Returns per litter farrowed	$	$	$ 210
Number of hens			155 g/
EGG RETURNS PER HEN	$	$	$ 4.46
Expense factors			
Labor: COST PER CROP ACRE	$	$ d/	$ 19.67
" Total months of labor		c/	23.5
POWER AND MACHINERY COST PER CROP ACRE	$	$ d/	14.83
Land improvement cost per acre		c/	1.95
BUILDINGS COST PER ACRE		c/	3.46
Land tax per acre		a/	1.47

a/ Table 5, value of improved land.
b/ Table 6, source of income.
c/ Table 4, size of farm.
d/ Table 7, size of farm and number of milk cows per 100 acres.

e/ Farms with over $299 dairy sales.
f/ Farms buying feeder pigs excluded.
g/ Farms with more than 49 hens.

* Includes Farm Bureau Farm Management Service Records.

USE THIS CHART TO STUDY YOUR BUSINESS
Accounting Farms in Farming-Type Area 1, 1945

The double line across the middle of the page represents the average for farms which are similar to your farm for the indicated factor. By drawing a line across each column at the place where your farm stands in that factor, you can compare your efficiency with that of other similar accounting farms in your area.

				Factors that affect earnings										Factors that affect expenses		
					Crop yields				Livestock							
Rate earned on investment, percent	Acres in farm	Gross earnings per acre	Gross expenses per acre	Percent of tillable land in hay and pasture	Corn, bu.	Oats, bu.	Wheat, bu.	Soybeans, bu.	Feed fed per acre to prod. livestock	Returns per $100 feed fed prod. l.s.	Dairy returns per cow milked	No. of pigs weaned per litter	Egg returns per hen	Labor cost per crop acre	Power and machinery cost per crop acre	Buildings cost per acre
25.2	402															
22.2	362															
19.2	322															
16.2	282															
13.2	242															
10.2	202															
7.2	162															
4.2	122															
1.2	82															
-1.8	42															
-4.8	2															
-7.8																
* 3%	40	$10	$5	3%	5	5	2	2	$4	$20	$30	.5	$.25	$2	$2	$.50

*Each space between lines represents the value indicated at bottom of each column.

(Higher values are recorded above the center of the page and lower values below, except for expenses, which are recorded in the opposite direction.)

TABLE 2.--INVESTMENTS, INVENTORY CHANGES, CASH EXPENSES, CASH RECEIPTS, AND EARNINGS
Accounting Farms in Farming-Type Area 1, 1945

Item	Capital investments: Your farm	Capital investments: Average of 136 farms*	Change in inventory: Your farm	Change in inventory: Average of 136 farms*
Land	$	$ 19783	$ --	$ --
Land improvements		914		73
Farm buildings		8881		-101
Horses		214		-53
Prod. l.s.: Cattle		6489		-312
Hogs		1103		46
Sheep		47		29
Poultry		196		8
Total productive livestock	)	(7835)	( )	(-229)
Feed, grain, and seeds		4886		333
Machinery and equipment		2940		146
Automobile (farm share)		185		-65
Totals	$	$ 45638	$	$ 104

Item	Cash expenses: Your farm	Cash expenses: Average of 136 farms*	Cash receipts: Your farm	Cash receipts: Average of 136 farms*
Land improvements	$	$ 470	$	$ 4
Farm buildings		647		50
Horses		25		21
Prod. l.s.: Cattle		4254		7436
Dairy sales	--	--		5622
Hogs		382		2683
Sheep		73		78
Poultry		69		182
Egg sales	--	--		493
Total productive livestock	( )	(4778)	( )	(16494)
Feed, grain, and seeds		2904		1782
Machinery and equipment		2212		356
Automobile (farm share)		139		18
Livestock expense		206	--	--
A.A.A. receipts	--	--		71
Labor		1202		61
Taxes		352	--	--
Miscellaneous		107		18
Totals	$	$ 13042	$	$ 18875

Item	Earnings: Your farm	Annual averages: 1945*	1944*	1943*	1942*	1941
Cash balance	$	$ 5833	$ 5734	$ 4704	$ 3979	$ 2428
Inventory change		104	-384	1877	1688	2413
Farm products used in household		441	441	414	332	279
RECEIPTS LESS EXPENSES	$	$ 6378	$ 5791	$ 6995	$ 5999	$ 5120
Family labor		366	397	371	241	189
RETURN FOR CAPITAL, LABOR & MGT	$	$ 6012	$ 5394	$ 6624	$ 5758	$ 4931
Operator's labor		1337	1320	1140	709	598
NET EARNINGS (Return for cap.& Mgt.)	$	$ 4675	$ 4074	$ 5484	$ 5049	$ 4333
RATE EARNED ON INVESTMENT	%	10.2%	8.8%	12.5%	13.3%	14.2%
Interest on investment at 5 percent	$	$ 2282	$ 2326	$ 2195	$ 1901	$ 1531
LABOR AND MANAGEMENT EARNINGS		3730	3068	4429	3857	3400

* Includes Farm Bureau Farm Management Service Records.

Inventory changes. In 1945, a $229 inventory decrease in productive livestock was more than offset by a $333 inventory increase in feed and grain and a $146 inventory increase in machinery and equipment (Table 2). The average amounts of corn, oats, and soybeans on hand in Area 1 at the two inventory periods are shown in the following table:

TABLE 3.--INVENTORIES OF GRAIN ON HAND
Accounting Farms in Farming-Type Area 1, 1945

Grain	Beginning of year (bushels)	End of year (bushels)	Change (bushels)
Corn................	2 192	2 250	+58
Oats................	1 165	1 797	+632
Soybeans............	65	73	+8

Size of farm. As the average size of farm increased from 103 acres to 342 acres, the cost per crop acre for labor decreased from $25.18 to $16.26, and for power and machinery it decreased from $19.02 to $11.98.

In comparing labor and management earnings for the various size groups, one should consider that, in general, such earnings increase as the size of farms increase when the average rate earned on investment is 5 percent or more, but that this earning situation is reversed when the average rate earned is less than 5 percent.

TABLE 4.--FARM EARNINGS AND OTHER FACTORS RELATED TO SIZE OF FARM
Accounting Farms in Farming-Type Area 1, 1945

Item	Total acres in farm: 77 to 120	121 to 180	181 to 240	241 to 651
Number of farms..................	22	44	42	28
Acres in farm....................	103	156	209	342
Acres in crops...................	73	108	156	248
Rate earned on investment.......	10.9%	8.3%	10.6%	11.3%
Labor and management earnings...	$2469	$2602	$3910	$6225
Net earnings per acre...........	22.87	20.25	23.26	25.31
Labor cost per crop acre........	$ 25.18	$ 24.54	$ 18.39	$ 16.26
Total months of labor...........	14.8	21.5	23.7	32.9
Power & mach. cost per crop acre	$ 19.02	$ 17.14	$ 15.15	$ 11.98
Buildings cost per acre.........	3.31	4.10	3.37	3.11
Feed fed per acre to prod. l.s..	45.22	39.57	39.00	39.85

Land use. As the average per-acre value of improved land increased from $59 to $137, the tillable land increased from 78.7 percent to 90.5 percent; the tillable land in corn and soybeans increased from 29.3 percent to 51.3 percent, and the net earnings per acre increased from $14.73 to $25.48 (Table 5). On the other hand, total hay and pasture acreages decreased from 44.6 percent to 21.9 percent.

TABLE 5.--USE OF TILLABLE LAND AND OTHER FACTORS RELATED TO THE VALUE OF IMPROVED LAND
Accounting Farms in Farming-Type Area 1, 1945

Item	Value of improved land					
	$55 to $65	$66 to $79	$80 to $93	$94 to $107	$108 to $121	$122 to $200
Number of farms	5	11	24	57	22	17
Value of improved land	$ 59	$ 76	$ 85	$100	$115	$137
Acres in farm	161	186	196	198	214	231
Rate earned on investment	8.4%	11.2%	10.9%	10.4%	10.2%	9.3%
Percent of land area tillable	78.7	81.2	81.2	80.1	87.2	90.5
Percent of tillable land in:						
Corn	29.3	33.8	40.3	40.7	48.3	42.1
Oats	23.4	22.9	22.4	24.0	19.5	23.1
Wheat	--	.3	--	.4	.3	1.3
Soybeans for grain	--	4.1	3.1	3.2	1.5	9.2
Hay & Pas. (incl. cl.& gr. seed)	44.6	38.1	33.4	30.1	30.0	21.9
Other crops (incl.idle till.land)	2.7	.8	.8	1.6	.4	2.4
Crop yields:						
Corn, bu	53.7	47.7	48.2	48.4	56.0	54.1
Oats, bu	57.4	54.7	62.5	69.3	72.0	70.0
Wheat, bu	--	29.6	--	27.0	29.9	23.0
Soybeans, bu	--	18.4	22.1	23.3	22.7	27.8
Gross earnings per acre	$ 65.34	$ 56.02	$ 62.86	$ 62.22	$ 77.68	$ 65.56
Gross expense per acre	50.51	37.59	41.45	39.75	49.69	40.08
Net earnings per acre	$ 14.73	$ 18.43	$ 21.41	$ 22.47	$ 27.99	$ 25.48
Land improvements cost per acre	$ 2.02	$ 2.07	$ 2.14	$ 1.56	$ 2.86	$ 1.63
Land tax per acre	1.37	1.34	1.35	1.47	1.60	1.48
Total investment per acre	175	165	197	216	273	273

Crop yields. Because of wide variations from county to county in percentage of land area tillable, soil treatments, and weather conditions in 1944, the relationship between per acre value of improved land and per acre yields for corn was not as pronounced as usual. Oat yields were approximately 30 percent more on the higher valued land than on the lower valued. Soybean yields increase 50 percent as the value of land increased from $76 per acre to $137.

Source of income. Relative profits from various types of farming change from year to year, depending on conditions affecting production and price. Therefore, averages for one year should not be the basis for reorganizing the farm business. In 1945, there was no significant difference in the rate earned on investment for farms falling into the various source of income groups. Dairy farms predominated in numbers and these farms milked the largest number of cows and received the largest returns per cow milked. Hog and cattle farms had the largest number of litters farrowed and the largest returns per litter (Table 6).

TABLE 6.--FARM EARNINGS AND OTHER FACTORS RELATED TO SOURCE OF INCOME
Accounting Farms in Farming-Type Area 1, 1945

Item	Source of income		
	Dairy sales over 40%	Hogs and/or cattle over 40%	General farms
Number of farms	90	28	18
Acres in farm	192	216	232
Rate earned on investment	10.9%	8.9%	10.2%
Feed fed per acre to prod. l.s.	$ 35.28	$ 65.81	$ 21.88
Returns per $100 feed fed	165	121	139
Number of cows milked	27.2	12.0	18.0
Dairy returns per cow milked	$ 293	$ 222	$ 273
Number of litters farrowed	10.7	29.8	14.9
Number of pigs weaned per litter	6.1	5.7	6.1
Returns per litter farrowed	$ 200	$ 223	$ 220
Number of hens	152	160	165
Egg returns per hen	$ 4.42	$ 5.02	$ 3.96

Labor, power and machinery costs per crop acre. Increasing numbers of milk cows on farms require larger expenses for labor and for power and machinery. Farmers reduced their labor and power and machinery costs per crop acre by operating more acres (Table 7).

TABLE 7.--LABOR COST AND POWER AND MACHINERY COST PER CROP ACRE FOR DIFFERENT SIZE FARMS AND NUMBER OF MILK COWS PER 100 ACRES
Accounting Farms in Farming-Type Area 1, 1945

Acres per farm	Milk cows per 100 acres			Milk cows per 100 acres		
	Less than 11	11 to 15.9	16 or more	Less than 11	11 to 15.9	16 or more
	(Labor cost per crop acre)			(Power and machinery cost per crop acre)		
77 to 120	$24.20	$30.30	$30.40	$14.80	$19.50	$21.70
121 to 180	16.90	25.40	29.00	12.80	17.10	20.30
181 to 240	16.20	24.30	26.40	12.00	16.90	19.00
241 to 651	15.30	19.00	20.00	10.60	16.10	17.20

FARM LEASES

In recent years, farm leasing arrangements have been affected by the increased mechanization of farms, higher labor costs, higher land values, lower interest rates, governmental programs, increased number of young men ready to begin farming, and other changing conditions. Many new leases are being written, and old ones are being adjusted.

In order to keep leasing arrangements fair to both landlord and tenant, it is necessary to look at the lease as a whole as well as at its individual parts. The lease is fair only if the landlord and tenant share in the income in proportion to the value of their contributions. This principle is simple, but its application is not easy because of the difficulties in valuing capital, interest rates, unpaid labor, management and other items. In judging the fairness of a farm lease, either current values or long-time normal values must be used alike for all items.

TABLE 8.--CONTRIBUTIONS AND GROSS EARNINGS OF TENANTS AND LANDLORDS ON RENTED FARMS
Accounting Farms in Farming-Type Area 1, 1945

Item	Seventy rented farms	
	Tenant's share	Landlord's share
Contributions		
Real estate (residence excluded): $42,807 @ 4%....	$ ---	$1,712
Operating capital: Tenant, $12,013;Lld.,$5,192 @ 5%	601	260
Expenses and net decreases..........................	5,046	2,465
Unpaid labor...	1,798	45
Totals...	$7,445	$4,482
Gross earnings (receipts and net increases)..........	$9,207	$5,131
Gross earnings per $100 contributed..................	$ 124	$ 114

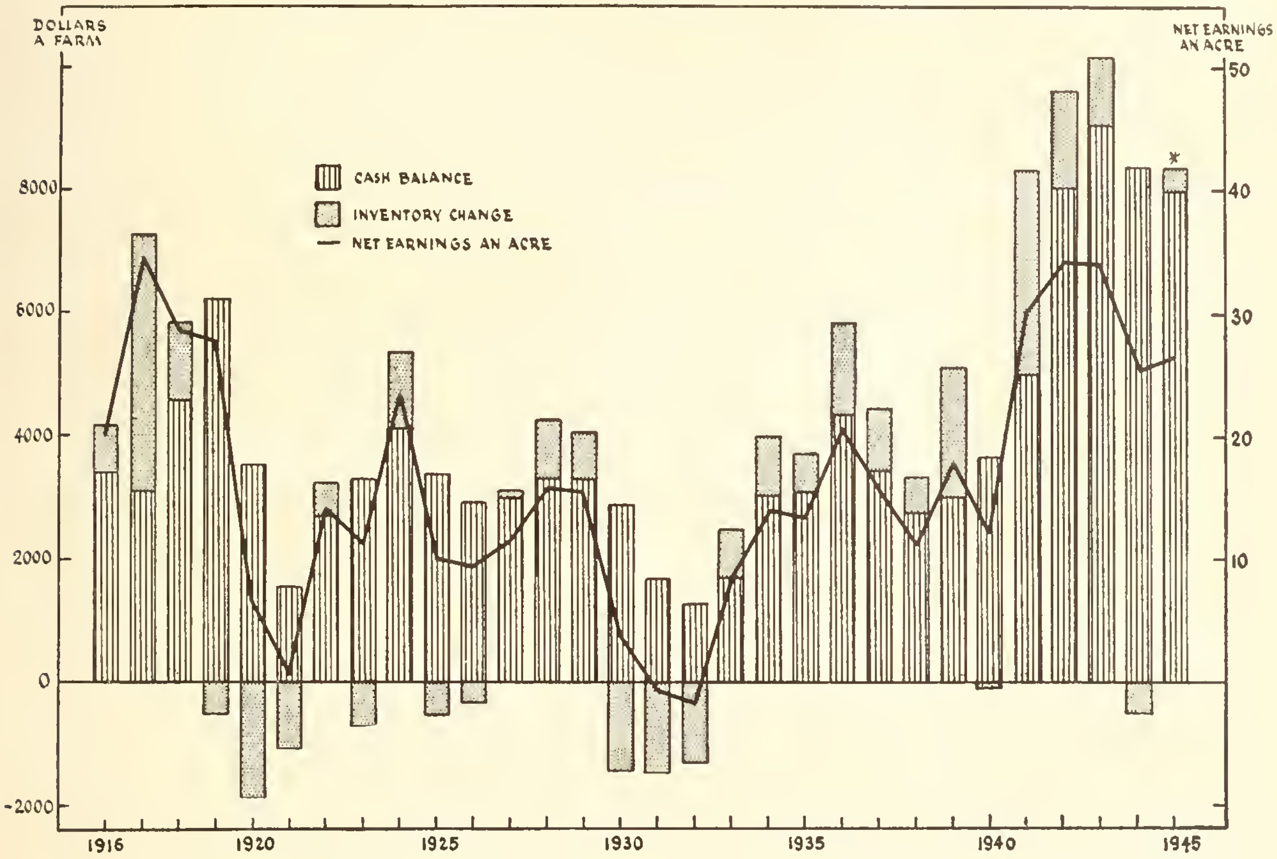
In the analyses given above, real estate values shown in the farm accounts were increased 36 percent to bring them in line with the 1945 market price. This adjustment was made on the basis of a 63 percent increase in values that took place in Illinois from 1935-1939 to 1945 but allowed for a 27 percent mark-up in book values during these years. In 1935-1939 farm real estate values per acre in the accounts averaged $115 but in 1945 they averaged $146. The interest rate on real estate was also adjusted from five to four percent to make it comparable with the current mortgage rate.

Although this analysis shows that the gross earnings per $100 contributed were $124 for the tenant and $114 for the landlord, the reader is cautioned against (1) assuming that all tenants profited more than their landlords, and (2) concluding that results would be the same in any other year with the same leases in force but with changed price relationships and other conditions. In the above analysis the rental value of the residence is not included in the tenant's gross earnings nor in the landlord's contributions because the records did not furnish the necessary information to make this computation.

The Illinois crop-share and livestock-share lease forms have recently been revised. For copies, see your farm adviser.

A GRAPHIC REVIEW OF FARM EARNINGS AND RELATED INFORMATION FOR ACCOUNTING FARMS IN EAST CENTRAL ILLINOIS, 1916-1945[1]

Net farm earnings, as shown on the front cover and on this page, are calculated by subtracting value of unpaid labor from the sum of: (1) Cash balance, (2) inventory change, and (3) value of farm products used in the household. On the front cover and in Chart 1 net farm earnings are expressed on an acre basis. In Chart 1 the cash balance and inventory change are shown on the total farm basis.



* *Estimate for 1945*

Chart 1. Net Earnings an Acre; Cash Balance and Inventory Change a Farm

High farm earnings continued longer during World War II than during World War I. Furthermore, earnings were more fully realized in cash during the last war than during World War I. This situation resulted in the retirement of many farm mortgages and in the accumulation of cash reserves which foreshadow inflationary danger — especially in the land market.

During the 30 years, 1916-1945, inventories increased 19 times and decreased 11; all but two of the decreases were during the first 17 years. Increased inventories since 1933 have been due to increased production and higher prices.

Average value of unpaid labor, which is not shown in Chart 1, increased from $360 in 1916 to $1,800 in 1945 without any material increase in the amount of labor used. Whereas, the value of farm products used in the household varied from year to year depending principally on price changes and averaged $322.

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[1] East Central Illinois is the only area for which adequate records are available for 30 years, including the two World War periods.

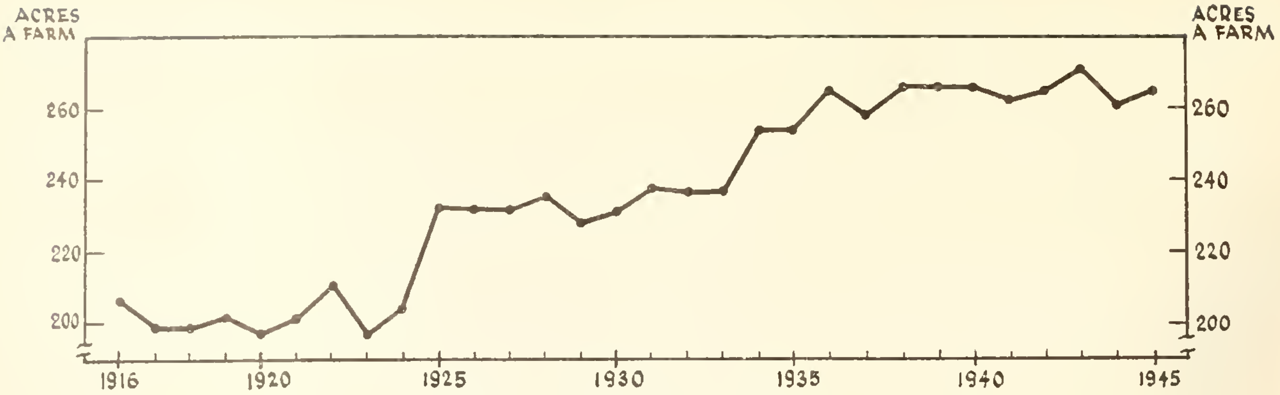


Chart 2. Variation in Size of Farms

Thirty years ago, 1916 to 1920, the accounting farms of East Central Illinois averaged 200 acres. More recently, 1941 to 1945, these farms averaged 265 acres — a 32 percent increase in size. The additional acres have added volume to the business and resulted in larger income per farm during World War II than during World War I even though prices of farm products were lower during World War II. This change in size is due primarily to the introduction of improved power, machinery, and equipment which makes it possible for the same labor to handle more land. The months of man labor used a farm has shown no material change.

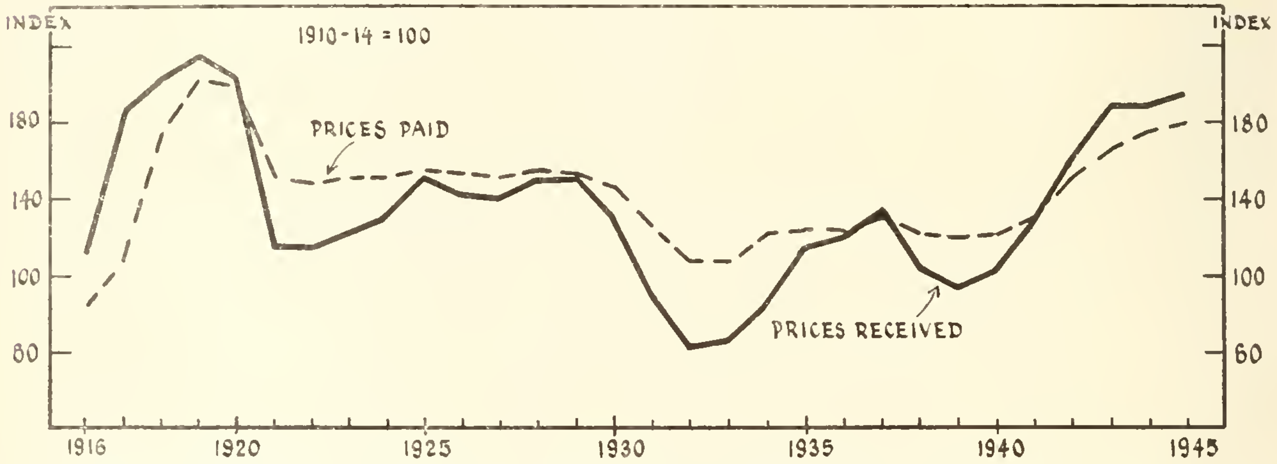


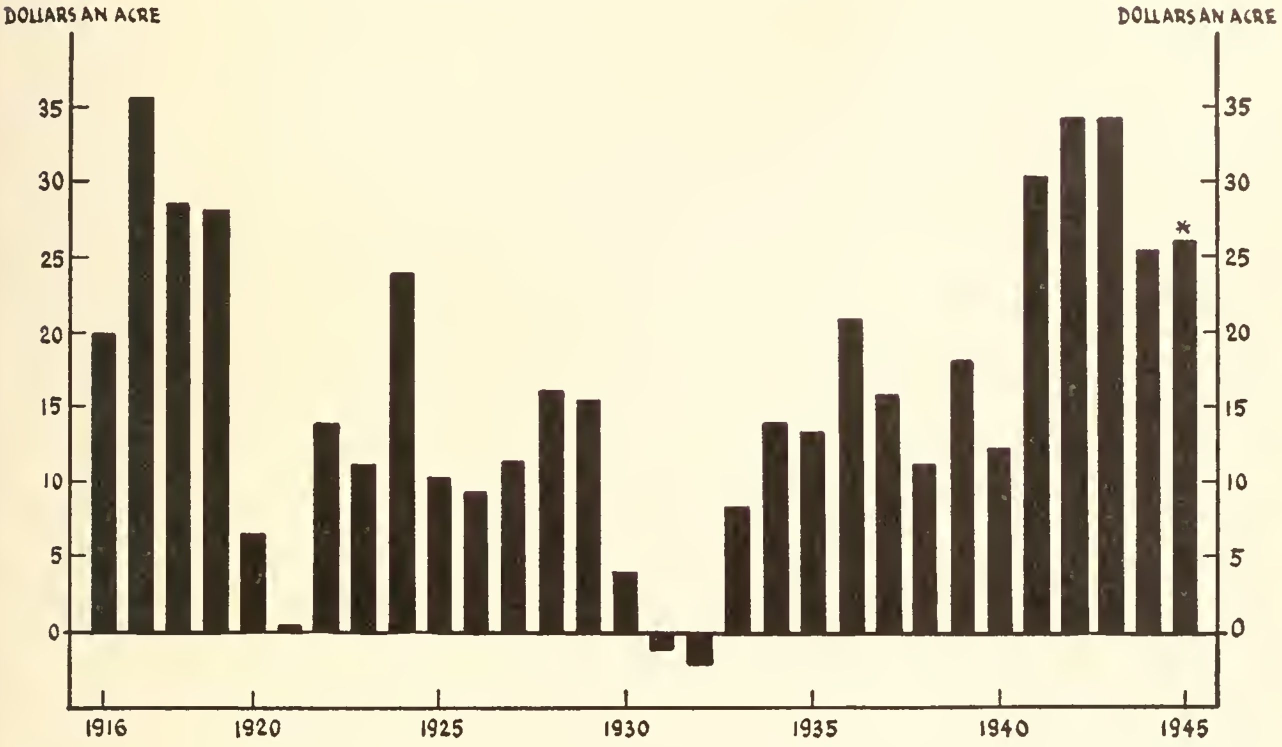
Chart 3. Prices Received by Illinois Farmers and Prices Paid by Farmers in the United States, 1916-1945

The only times during the past 30 years when prices received were appreciably above prices paid were during World Wars I and II. The 1937 year of favorable price relationships followed a drought which left farmers with small supplies of products to sell. Although prices received were lower during World War II than during World War I, net earnings an acre were at about the same level because of increased efficiency and higher production.

The price support program of 90 percent of parity or above for many farm products for two calendar years following the end of World War II will help cushion any decline that may take place in farm prices. Prices for things the farmer must buy, however, may be expected to remain relatively high for several years. Important factors affecting prices will be employment, national income and foreign demand for farm products.

Cooperative Extension Work in Agriculture and Home Economics: University of Illinois, College of Agriculture, and the United States Department of Agriculture cooperating. H. P. Rusk, *Director*. Acts approved by Congress May 8 and June 30, 1914.
(32409)

YOUR FARM BUSINESS REPORT 1945



**Estimate for 1945*

NET EARNINGS AN ACRE, EAST CENTRAL ILLINOIS ACCOUNTING FARMS, 1916-1945

Net farm earnings an acre from 1916 through 1945 varied from a gain of $35.51 in 1917 to a loss of $1.96 in 1932. Following World War I, earnings remained relatively high for almost two years, then dropped precipitously in 1920 and in 1921. For further information on long-time changes in earnings of Illinois accounting farms, see the inside back cover of this report.

FARMING-TYPE AREA TWO

Northwestern Mixed Livestock Area

NAME____

DEPARTMENT OF AGRICULTURAL ECONOMICS, UNIVERSITY OF ILLINOIS
COLLEGE OF AGRICULTURE, EXTENSION SERVICE IN AGRICULTURE AND HOME ECONOMICS
URBANA, ILLINOIS

AE-2386

UNIVERSITY *of* ILLINOIS
COLLEGE *of* AGRICULTURE
AGRICULTURAL EXPERIMENT STATION
URBANA, ILLINOIS

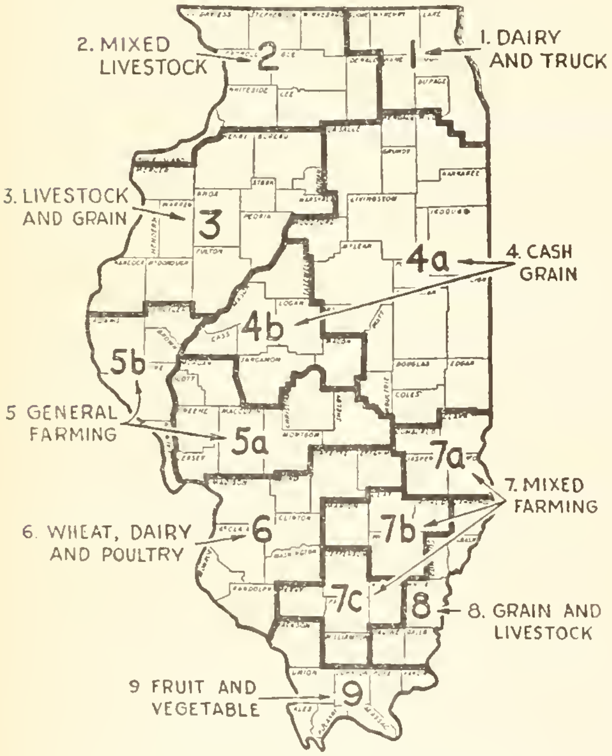
DEPARTMENT *of*
AGRICULTURAL ECONOMICS

Dear Cooperator:

This is the thirtieth annual report of farm account records kept by Illinois farmers enrolled in the farm accounting extension project conducted by this department. The earnings on farms, both during World War I and World War II, show some interesting comparisons which may well serve as a basis for anticipating a reduction in earnings during postwar years after deficits in food supplies have been made up.

The charts on the front and back cover pages of the report set forth the results from farm accounts in East Central Illinois. This is the only area of the state for which records were available for the entire 30-year period, but they are indicative of farm conditions throughout the state.

Of even greater importance to you than these results of the past 30 years, are the results from your own farm in comparison with the data from similar farms in your own section of the state, and with the data from your own farm in previous years.



THE NINE MAJOR TYPE-OF-FARMING AREAS IN ILLINOIS

Farm accounts have a number of uses among which are the following: First, the results from a group of farms serve as a standard or yardstick with which to measure your own accomplishments; second, analyzed over a period of years and studied in the light of existing economic conditions, they serve as a guide in planning for the future; and, third, in times of rapidly changing costs of production they serve as a guide for adjusting farm leases or father-son business agreements on an equitable basis.

The map on this page will identify the area for which this report is prepared.

We trust that this report will prove valuable to you.

Very truly yours,

H. C. M. CASE
Head of Department

Annual Farm Business Report

ONE HUNDRED FIFTY-ONE FARMS IN FARMING-TYPE AREA 2, 1945

J. B. Cunningham, Elmer N. Searls, and A. G. Mueller

Net farm earnings on accounting farms in Farming-Type Area 2 were slightly lower in 1945 than in 1944. The average net earnings were $4,024 in 1945; $4,258 in 1944; $5,688 in 1943; $6,162 in 1942; and $5,070 in 1941 (Table 2). The items considered in calculating net earnings include cash balance, inventory change, value of farm products used in the household, and unpaid labor.

A lower cash balance in 1945 than in 1944 was partially offset by an inventory increase; the value of farm products used in the household was not significantly different for the two years; and the value of family and operator's labor was somewhat higher in 1945 than in 1944. In comparing charges for unpaid labor (family and operator's) in 1945 with those for previous years it should be noted that the value more than doubled from 1941 to 1945. This increase did not come from the use of more labor but because the average monthly wage rate in most of the area increased from $55 in 1941 to $130 in 1945.

The averages presented in this report provide a good local yardstick of efficiency. From tables 1 through 7, each cooperator may determine why his return for 1945 was above or below the average of other farms in the area. When efficiency factors are effected by size, source of income, value of improved land, or amount of feed fed, the records are sorted into groups with comparable conditions and averages are run for each group (Table 1). This practice permits you to compare your farm with others that are more similar to yours than is the entire group.

The accounting farms in this report were larger than the average of all the farms in the area; the crop yields were above average; and the farm operators were more skillful than average in the organization and operation of their farms. Therefore, the figures contained in this report represent conditions which are better than average for the area.

1/ In cooperation with county farm bureaus and county farm advisers as follows (number of farm account records shown in parenthesis):

Carroll	(8)	M. P. Roske
DeKalb	(59)	W. C. Mummert
Jo Daviess	(16)	H. E. Kearnagham (G. W. Churchill since Oct. 1, 1945)
Lee	(15)	C. E. Yale
Ogle	(10)	D. E. Warren
Rock Island	(21)	W. R. Taylor (G. H. Reid since Feb. 16, 1946)
Stephenson	(20)	V. J. Banter
Whiteside	(8)	F. H. Shuman
Winnebago	(10)	H. R. Brunnemeyer

TABLE 1.--FACTORS USED TO ANALYZE THE FARM BUSINESS
Accounting Farms in Farming-Type Area 2, 1945

Item	Your farm	Standards for your farm	Average of 151 farms
(Those capitalized used in chart on opposite page)			
RATE EARNED ON INVESTMENT	%	11.0 %	11.0 %
Labor and management earnings	$	$ c/	$3703
ACRES IN FARM		200	200
Acres in crops		136	136
GROSS EARNINGS PER ACRE	$	$ a/	$ 51.95
GROSS EXPENSE PER ACRE			31.79
Net earnings per acre	$	$	$ 20.16
Investments			
Value of improved land per acre	$	$ a/	$ 98
Total investment per acre			183
Land use			
Percent of land area tillable		a/	81.0
Percent of tillable land in:			
Corn		a/	40.2
Oats			23.2
Wheat			.7
Soybeans for grain			3.6
HAY AND PASTURE (incl. cl. & gr. seed crops)			30.7
Other crops (includes idle tillable land)			1.6
Crop yields			
CORN, BU		a/	54.1
OATS, BU			62.2
WHEAT, BU			29.1
SOYBEANS, BU			21.7
Livestock factors			
FEED FED PER ACRE TO PRODUCTIVE LIVESTOCK	$	$ b/	$ 30.99
RETURNS PER $100 FEED FED	$	$	$ 152
Number of cows milked			13.2 e/
DIARY RETURNS PER COW MILKED	$	$	$ 211
Number of litters farrowed			18 f/
NUMBER OF PIGS WEANED PER LITTER			6.3
Returns per litter farrowed	$	$	$ 227
Number of hens			158 g/
EGG RETURNS PER HEN			4.27
Expense factors			
Labor: COST PER CROP ACRE	$	$ d/	$ 18.75
" Total months of labor		c/	20.0
POWER AND MACHINERY COST PER CROP ACRE	$	$ d/	$ 11.37
Land improvement cost per acre		a/	1.32
BUILDINGS COST PER ACRE		c/	1.88
Land tax per acre		a/	1.17

a/ Table 3, value of improved land.
b/ Table 4, source of income.
c/ Table 5, size of farm.
d/ Table 6, size of farm and amount of feed fed per acre.
e/ Farms with over $299 dairy sales.
f/ Farms buying feeder pigs excluded.
g/ Farms with more than 49 hens.

USE THIS CHART TO STUDY YOUR BUSINESS
Accounting Farms in Farming-Type Area 2, 1945

The double line across the middle of the page represents the average for farms which are similar to your farm for the indicated factor. By drawing a line across each column at the place where your farm stands in that factor, you can compare your efficiency with that of other similar accounting farms in your area.

				Factors that affect earnings										Factors that affect expenses		
					Crop yields				Livestock							
Rate earned on investment, percent	Acres in farm	Gross earnings per acre	Gross expenses per acre	Percent of tillable land in hay and pasture	Corn, bu.	Oats, bu.		Soybeans, bu.	Feed fed per acre to prod. livestock	Returns per $100 feed fed prod. l.s.	Dairy returns per cow milked	No. of pigs weaned per litter	Egg returns per hen	Labor cost per crop acre	Power and machinery cost per crop acre	Buildings cost per acre
31	360															
27	320															
23	290															
19	260															
15	230															
11.0	200															
7	170															
3	140															
-1	110															
-5	80															
-9	50															
-13																
* 4%	30	$5	$3	5%	4	4		2	$5	$20	$10	.5	.50	$2	$1	.40

*Each space between lines represents the value indicated at bottom of each column.

(Higher values are recorded above the center of the page and lower values below, except for expenses, which are recorded in the opposite direction).

TABLE 2.--INVESTMENTS, INVENTORY CHANGES, CASH EXPENSES, CASH RECEIPTS, AND EARNINGS
Accounting Farms in Farming-Type Area 2, 1945

Item	Capital investments		Change in inventory	
	Your farm	Average of 151 farms	Your farm	Average of 151 farms
Land	$	$ 17921	$ --	$ --
Land improvements		718		98
Farm buildings		5211		-62
Horses		162		-35
Prod. l.s.: Cattle		3664		323
Hogs		1483		193
Sheep		115		59
Poultry		186		17
Total productive livestock	( )	(5448)	( )	(592)
Feed, grain, and seeds		4338		-427
Machinery and equipment		2386		193
Automobile (farm share)		255		-43
Totals	$	$ 36439	$	$ 316

Item	Cash expenses		Cash receipts	
	Your farm	Average of 151 farms	Your farm	Average of 151 farms
Land improvements	$	$ 362	$	$ 3
Farm buildings		316		2
Horses		18		21
Prod. l.s.: Cattle		2326		4619
Dairy sales	--	--		2056
Hogs		276		3641
Sheep		210		267
Poultry		79		276
Egg sales	--	--		531
Total productive livestock	( )	(2891)	( )	(11390)
Feed, grain, and seeds		1842		1795
Machinery and equipment		1563		180
Automobile (farm share)		176		9
Livestock expense		127	--	--
A.A.A. receipts	--	--		83
Labor		513		20
Taxes		285	--	--
Miscellaneous		43		1
Totals	$	$ 8136	$	$ 13504

Item	Earnings					
	Your farm	Annual averages				
		1945	1944	1943	1942*	1941*
Cash balance	$	$ 5368	$ 5785	$ 6072	$ 4547	$ 3330
Inventory change		316	-15	837	2359	2274
Farm products used in household		393	362	376	330	276
RECEIPTS LESS EXPENSES	$	$ 6077	$ 6132	$ 7285	$ 7236	$ 5880
Family labor		552	497	440	276	195
RETURN FOR CAPITAL, LABOR & MGT.	$	$ 5525	$ 5635	$ 6845	$ 6960	$ 5685
Operator's labor		1501	1377	1157	798	615
NET EARNINGS (Return for cap.& Mgt.)	$	$ 4024	$ 4258	$ 5688	$ 6162	$ 5070
RATE EARNED ON INVESTMENT	%	11.0%	11.3%	15.5%	17.4%	15.0%
Interest on investment at 5 percent	$	$ 1822	$ 1886	$ 1838	$ 1772	$ 1686
LABOR AND MANAGEMENT EARNINGS		3703	3749	5007	5188	3999

* Includes Farm Bureau Farm Management Service records.

Inventory changes. In 1945, a $427 inventory decrease in feed and grain was more than offset by a $592 inventory increase in productive livestock and a $193 inventory increase in machinery and equipment (Table 2). The average amounts of corn, oats, and soybeans on hand in Area 2 at the two inventory periods are shown in the following table:

TABLE 3.--INVENTORIES OF GRAIN ON HAND
Accounting Farms in Farming-Type Area 2, 1945

Grain	Beginning of year (bushels)	End of year (bushels)	Change (bushels)
Corn.................	2 762	2 294	-468
Oats.................	953	1 362	+409
Soybeans.............	24	18	-6

Size of farm. As the average size of farm increased from 100 acres to 418 acres, the cost per crop acre for labor decreased from $26.24 to $15.51, and for power and machinery it decreased from $13.47 to $9.10. Likewise, the trend in building cost per acre was downward as the size of farms increased except for the farms averaging 418 acres in size (Table 4).

In comparing labor and management earnings for the various size groups, one should consider that, in general, such earnings increase as the size of farms increase when the average rate earned on investment is 5 percent or more, but that this earning situation is reversed when the average rate earned is less than 5 percent.

TABLE 4.--SIZE OF FARM RELATED TO FARM EARNINGS AND OTHER FACTORS
Accounting Farms in Farming-Type Area 2, 1945

Item	Total acres in farm				
	60 to 120	121 to 200	201 to 280	281 to 360	361 to 508
Number of farms.................	26	64	39	13	9
Acres in farm...................	100	161	239	318	418
Acres in crops..................	74	113	172	178	256
Rate earned on investment.......	9.0%	10.4%	12.3%	9.2%	13.3%
Labor and management earnings...	$2253	$3213	$4772	$3426	$7138
Net earnings per acre...........	17.87	20.52	22.76	13.50	21.60
Labor cost per crop acre........	$ 26.24	$ 24.03	$ 16.38	$ 16.31	$ 15.51
Total months of labor...........	15.4	18.6	21.8	23.4	30.5
Power & mach. cost per crop acre	$ 13.47	$ 14.29	$ 10.53	$ 11.24	$ 9.10
Buildings cost per acre.........	2.50	2.29	1.65	1.33	1.52
Feed fed per acre to prod. l.s..	36.57	35.54	29.72	21.64	28.04

Land use. As the average per-acre value of improved land increased from $42 to $145, the tillable land increased from 57.7 percent to 95.1 percent; the tillable land in corn and soybeans increased from 32.2 percent to 50.5 percent; and the net earnings per acre increased from $11.54 to $29.30 (Table 5). On the other hand, total hay and pasture acreages decreased from 41.4 percent to 25.5 percent.

TABLE 5.--USE OF TILLABLE LAND AND OTHER FACTORS RELATED TO THE VALUE OF IMPROVED LAND
Accounting Farms in Farming-Type Area 2, 1945

Item	Value of improved land					
	$ 27 to $ 52	$ 53 to $ 72	$ 73 to $ 92	$ 93 to $112	$113 to $132	$133 to $175
Number of farms....................	15	27	30	32	27	20
Value of improved land.............	$ 42	$ 63	$ 83	$102	$125	$145
Acres in farm......................	228	207	173	193	200	218
Rate earned on investment..........	11.5%	10.5%	10.0%	10.8%	11.9%	11.0%
Percent of land area tillable......	57.7	72.5	82.9	82.6	89.6	95.1
Percent of tillable land in:						
Corn.............................	29.1	36.5	38.8	40.5	43.9	46.0
Oats.............................	19.0	23.3	24.8	24.7	21.5	23.4
Wheat............................	.5	.9	1.0	1.0	.6	--
Soybeans for grain...............	3.1	.4	3.0	3.8	6.6	3.7
Hay & Pas. (incl. cl.& gr. seed).	41.4	38.3	30.4	28.6	26.7	25.5
Other crops (incl.idle till.land)	6.9	.6	2.0	1.4	.7	1.4
Crop yields:						
Corn, bu.........................	46.7	52.7	56.6	53.3	56.0	53.8
Oats, bu.........................	45.7	60.1	58.3	62.5	68.7	67.4
Wheat, bu........................	18.3	23.5	30.8	31.8	36.0	--
Soybeans, bu.....................	17.2	13.2	19.5	22.6	22.5	23.3
Gross earnings per acre............	$ 34.32	$ 46.22	$ 54.25	$ 51.10	$ 58.80	$ 63.05
Gross expense per acre.............	22.78	32.16	37.13	30.96	31.35	33.75
Net earnings per acre..............	$ 11.54	$ 14.06	$ 17.12	$ 20.14	$ 27.45	$ 29.30
Land improvement cost per acre.....	$ .70	$ 1.10	$ 1.66	$ 1.23	$ 1.68	$ 1.33
Land tax per acre..................	.78	1.02	1.11	1.16	1.33	1,47
Total investment per acre..........	92.	134	171.	186.	230	266

Crop yields. Per-acre yields of corn, oats, and soybeans tended to increase as the land value increased (Table 5). The corn yield for accounting farms in Area 2 averaged 8.3 bushels lower in 1945 than in 1944. This was 17.7 bushels below the 1941 average.

Source of income. Relative profits from various types of farming change from year to year, depending on conditions affecting production and price. Therefore, averages for one year should not be the basis for reorganizing the farm business. In 1945, there was no significant difference in the rate earned on investment for farms selling into the various source of income groups. The dairymen milked the largest number of cows and received the largest returns per cow, while the hog and cattle farmers had the largest number of litters farrowed and the largest returns per litter (Table 6).

TABLE 6.--SOURCE OF INCOME RELATED TO FARM EARNINGS AND OTHER FACTORS
Accounting Farms in Farming-Type Area 2, 1945

Item	Source of income			
	Dairy sales 40%+	Hogs 40%+	Hogs 40%+ & cattle 20%+ or vice versa	General farms
Number of farms	26	34	30	61
Acres in farms	209	170	223	201
Rate earned on investment	11.3 %	9.4 %	11.8 %	11.2 %
Feed fed per acre to prod. l.s.	$ 29.42	$ 29.75	$ 42.96	$ 25.74
Returns per $100 feed fed	168	150	141	155
Number of cows milked	22.2	9.5	7.1	12.5
Dairy returns per cow milked	$259	$180	$189	$182
Number of litters farrowed	15.2	18.1	27.3	13.3
Number of pigs weaned per litter	5.4	6.6	6.4	6.1
Returns per litter farrowed	$183	$236	$237	$224
Number of hens	157	144	137	176
Egg returns per hen	$ 4.11	$ 2.44	$ 4.21	$ 4.40

Labor, power and machinery costs per crop acre. Increasing amounts of livestock on farms require larger expenses for labor and for power and machinery. Farmers reduced their labor and power and machinery costs per crop acre by operating more acres (Table 7).

TABLE 7.--LABOR COST AND POWER AND MACHINERY COST PER CROP ACRE FOR DIFFERENT SIZE FARMS AND DIFFERENT AMOUNTS OF FEED FED PER ACRE TO PRODUCTIVE LIVESTOCK
Accounting Farms in Farming-Type Area 2, 1945

Acres per farm	Feed fed per acre				Feed fed per acre			
	Less than $18.00	$18.00 to $27.99	$28.00 to $37.99	$38.00 or more	Less than $18.00	$18.00 to $27.99	$28.00 to $37.99	$38.00 or more
	(labor cost per crop acre)				(Power and machinery cost Per crop acre)			
60 to 120	$18.10	$22.20	$24.00	$29.90	$12.60	$13.50	$14.00	$15.40
121 to 200	17.50	19.80	20.90	22.20	10.90	12.50	13.00	13.40
201 to 280	13.40	14.00	14.50	16.80	10.50	11.00	11.50	12.50
281 to 360	13.00	13.50	14.20	15.70	10.10	10.40	11.00	12.10
361 to 508	8.90	11.90	12.50	15.50	6.30	8.80	9.50	11.30

FARM LEASES

In recent years, farm leasing arrangements have been affected by the increased mechanization of farms, higher labor costs, higher land values, lower interest rates, governmental programs, increased number of young men ready to begin farming, and other changing conditions. Many new leases are being written, and old ones are being adjusted.

In order to keep leasing arrangements fair to both landlord and tenant, it is necessary to look at the lease as a whole as well as at its individual parts. The lease is fair only if the landlord and tenant share in the income in proportion to the value of their contributions. This principle is simple, but is application is not easy because of the difficulties in valuing capital, interest rates, unpaid labor, management and other items. In judging the fairness of a farm lease, either current values or long-time normal values must be used alike for all items.

TABLE 8.--CONTRIBUTIONS AND GROSS EARNINGS OF TENANTS AND LANDLORDS ON RENTED FARMS
Accounting Farms in Farming-Type Area 2, 1945

	Sixty-six rented farms	
	Tenant's share	Landlord's share
Contributions		
Real estate (residence excluded): $38,430 @ 4%......	$ ---	$1,537
Operating capital: Tenant, $8,620, Lld., $4,035 @ 5%	431	202
Expenses and net decreases........................	3,162	1,459
Unpaid labor......................................	2,016	---
Totals..	$5,609	$3,198
Gross earnings (receipts and net increases)..........	$6,695	$4,455
Gross earnings per $100 contributed..................	$ 119	$ 139

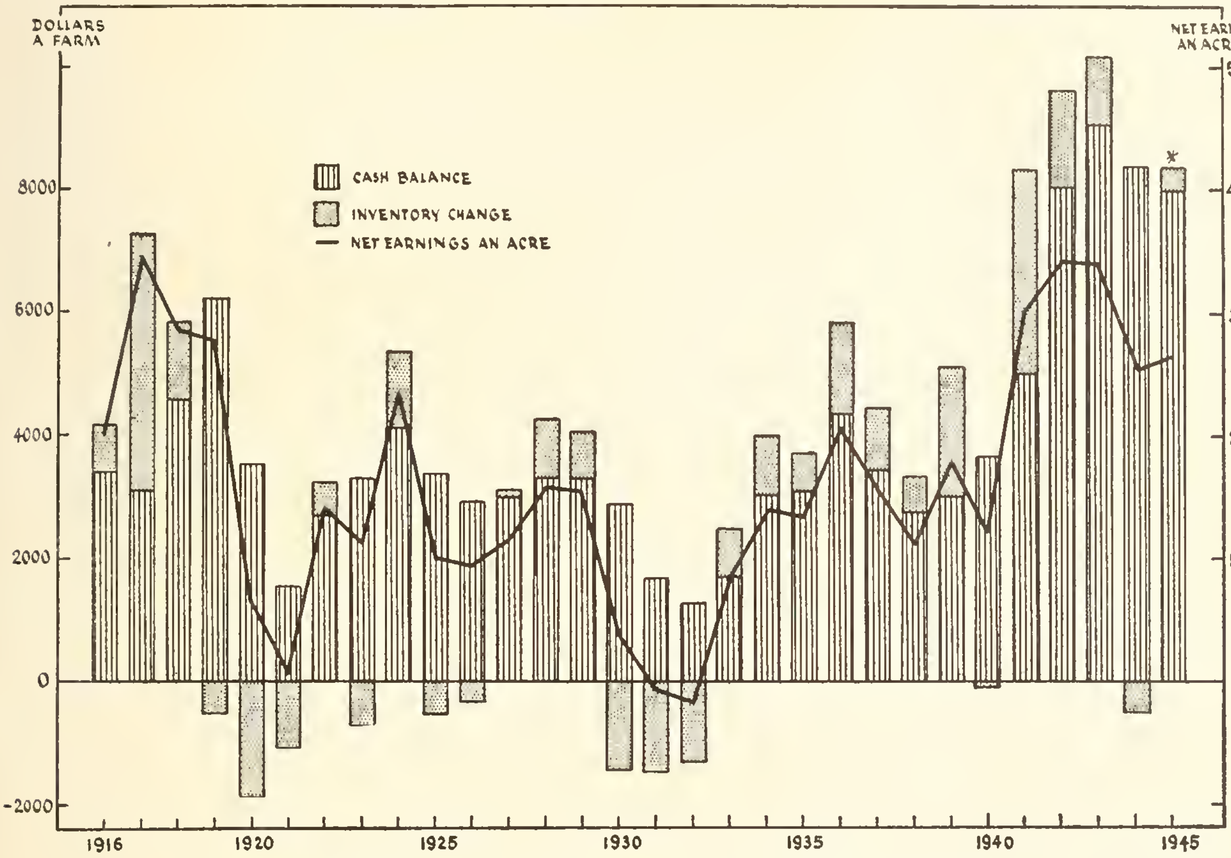
In the analysis given above, real estate values shown on the farm accounts were increased 63 percent to bring them in line with the 1945 market price. This adjustment was made on the basis of the increase in values that took place in Illinois from 1935-1939 to 1945. In the farm account books real estate values averaged $117 an acre in 1945 and $112 in 1935-1939. The interest rate on real estate was also adjusted from five to four percent to put it in line with the current mortgage rate.

Although this analysis shows that the gross earnings per $100 contributed were $119 for the tenant and $139 for the landlord, the reader is cautioned against (1) assuming that all landlords profited more than their tenants, and (2) concluding that results would be the same in any other year with the same leases in force but with changed price relationships and other conditions. Furthermore, in the above analysis for 1945 the rental value of the residence is not included in the tenant's gross earnings nor in the landlord's contributions because the records did not furnish the necessary information to make this computation. Had this item been included, the gross earnings per $100 contributed by landlord and tenant would have been more nearly equal.

The Illinois crop-share and livestock-share lease forms have recently been revised. For copies, see your farm adviser.

A GRAPHIC REVIEW OF FARM EARNINGS AND RELATED INFORMATION FOR ACCOUNTING FARMS IN EAST CENTRAL ILLINOIS, 1916-1945[1]

Net farm earnings, as shown on the front cover and on this page, are calculated by subtracting value of unpaid labor from the sum of: (1) Cash balance, (2) inventory change, and (3) value of farm products used in the household. On the front cover and in Chart 1 net farm earnings are expressed on an acre basis. In Chart 1 the cash balance and inventory change are shown on the total farm basis.



* *Estimate for 1945*

Chart 1. Net Earnings an Acre; Cash Balance and Inventory Change a Farm

High farm earnings continued longer during World War II than during World War I. Furthermore, earnings were more fully realized in cash during the last war than during World War I. This situation resulted in the retirement of many farm mortgages and in the accumulation of cash reserves which foreshadow inflationary danger — especially in the land market.

During the 30 years, 1916-1945, inventories increased 19 times and decreased 11; all but two of the decreases were during the first 17 years. Increased inventories since 1933 have been due to increased production and higher prices.

Average value of unpaid labor, which is not shown in Chart 1, increased from $360 in 1916 to $1,800 in 1945 without any material increase in the amount of labor used. Whereas, the value of farm products used in the household varied from year to year depending principally on price changes and averaged $322.

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[1] East Central Illinois is the only area for which adequate records are available for 30 years, including the two World War periods.

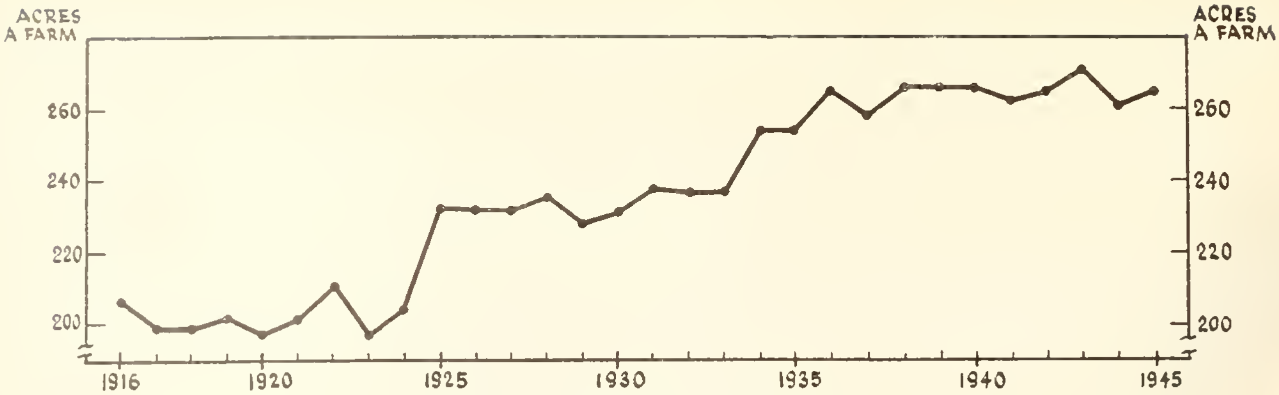


Chart 2. Variation in Size of Farms

Thirty years ago, 1916 to 1920, the accounting farms of East Central Illinois averaged 200 acres. More recently, 1941 to 1945, these farms averaged 265 acres — a 32 percent increase in size. The additional acres have added volume to the business and resulted in larger income per farm during World War II than during World War I even though prices of farm products were lower during World War II. This change in size is due primarily to the introduction of improved power, machinery, and equipment which makes it possible for the same labor to handle more land. The months of man labor used a farm has shown no material change.

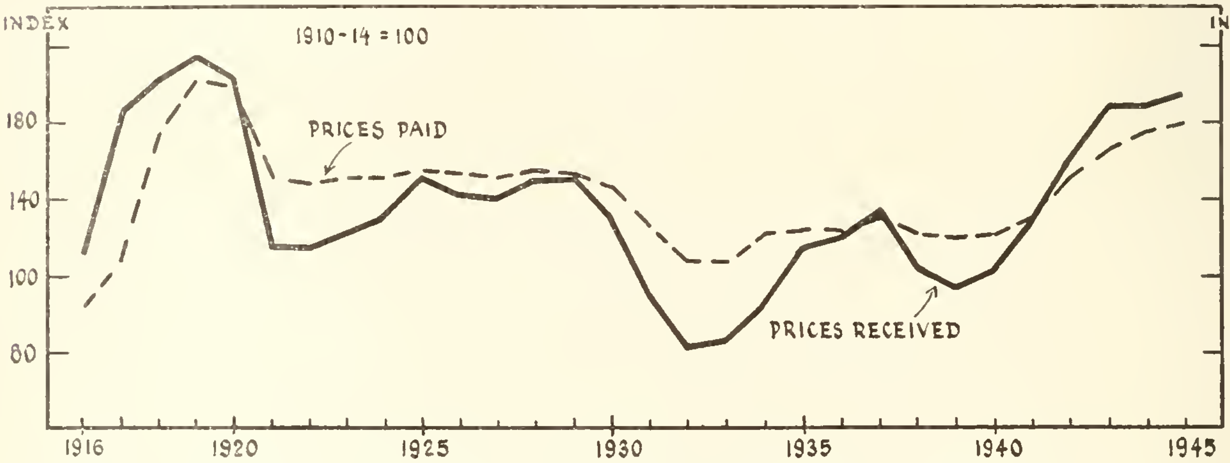


Chart 3. Prices Received by Illinois Farmers and Prices Paid by Farmers in the United States, 1916-1945

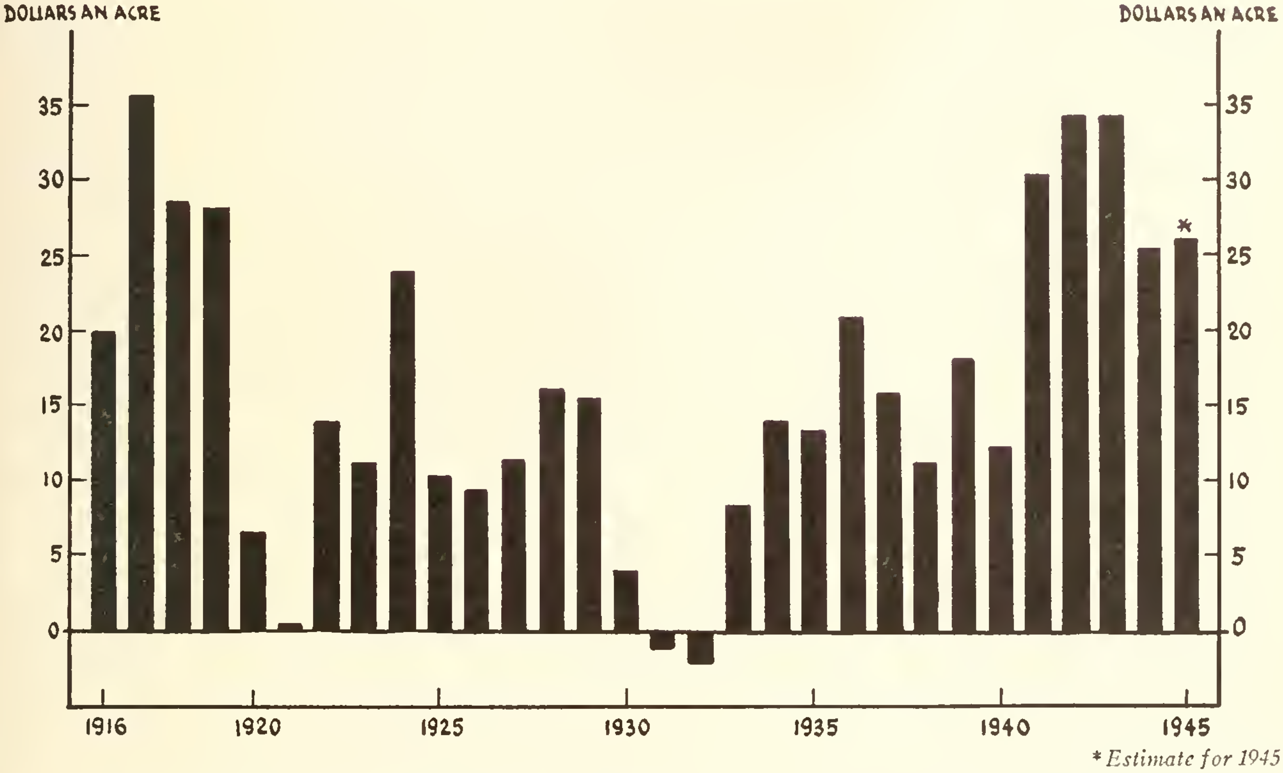
The only times during the past 30 years when prices received were appreciably above prices paid were during World Wars I and II. The 1937 year of favorable price relationships followed a drought which left farmers with small supplies of products to sell. Although prices received were lower during World War II than during World War I, net earnings an acre were at about the same level because of increased efficiency and higher production.

The price support program of 90 percent of parity or above for many farm products for two calendar years following the end of World War II will help cushion any decline that may take place in farm prices. Prices for things the farmer must buy, however, may be expected to remain relatively high for several years. Important factors affecting prices will be employment, national income and foreign demand for farm products.

Cooperative Extension Work in Agriculture and Home Economics: University of Illinois, College of Agriculture, and the United States Department of Agriculture cooperating. H. P. Rusk, *Director*. Acts approved by Congress May 8 and June 30, 1914.

(32409)

YOUR FARM BUSINESS REPORT 1945



NET EARNINGS AN ACRE, EAST CENTRAL ILLINOIS ACCOUNTING FARMS, 1916-1945

Net farm earnings an acre from 1916 through 1945 varied from a gain of $35.51 in 1917 to a loss of $1.96 in 1932. Following World War I, earnings remained relatively high for almost two years, then dropped precipitously in 1920 and in 1921. For further information on long-time changes in earnings of Illinois accounting farms, see the inside back cover of this report.

FARMING-TYPE AREA THREE
Western Livestock and Grain Area

NAME________________________________

DEPARTMENT OF AGRICULTURAL ECONOMICS, UNIVERSITY OF ILLINOIS
COLLEGE OF AGRICULTURE, EXTENSION SERVICE IN AGRICULTURE AND HOME ECONOMICS
URBANA, ILLINOIS

AE-2387

UNIVERSITY *of* ILLINOIS
COLLEGE *of* AGRICULTURE
AGRICULTURAL EXPERIMENT STATION
URBANA, ILLINOIS

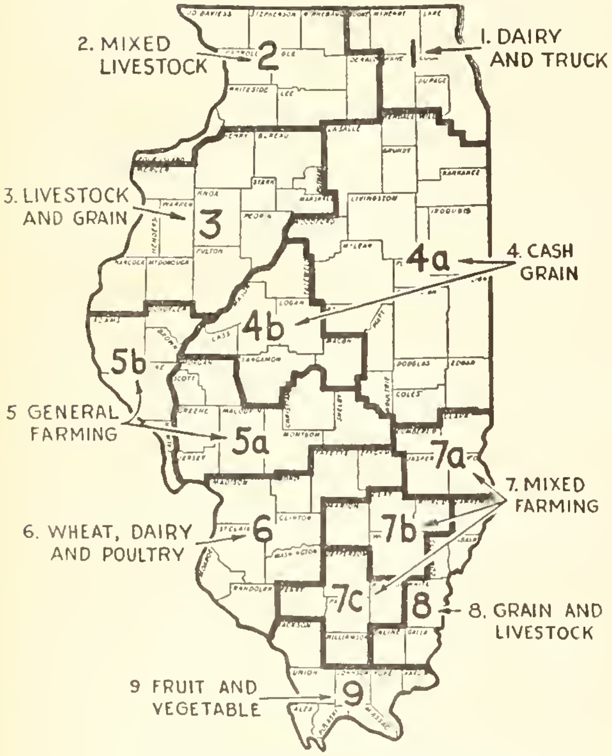
DEPARTMENT *of*
AGRICULTURAL ECONOMICS

Dear Cooperator:

This is the thirtieth annual report of farm account records kept by Illinois farmers enrolled in the farm accounting extension project conducted by this department. The earnings on farms, both during World War I and World War II, show some interesting comparisons which may well serve as a basis for anticipating a reduction in earnings during postwar years after deficits in food supplies have been made up.

The charts on the front and back cover pages of the report set forth the results from farm accounts in East Central Illinois. This is the only area of the state for which records were available for the entire 30-year period, but they are indicative of farm conditions throughout the state.

Of even greater importance to you than these results of the past 30 years, are the results from your own farm in comparison with the data from similar farms in your own section of the state, and with the data from your own farm in previous years.



THE NINE MAJOR TYPE-OF-FARMING AREAS IN ILLINOIS

Farm accounts have a number of uses among which are the following: First, the results from a group of farms serve as a standard or yardstick with which to measure your own accomplishments; second, analyzed over a period of years and studied in the light of existing economic conditions, they serve as a guide in planning for the future; and, third, in times of rapidly changing costs of production they serve as a guide for adjusting farm leases or father-son business agreements on an equitable basis.

The map on this page will identify the area for which this report is prepared.

We trust that this report will prove valuable to you.

Very truly yours,

H. C. M. CASE
Head of Department

Annual Farm Business Report

TWO HUNDRED TWENTY-SIX FARMS IN FARMING-TYPE AREA 3, 1945

J. B. Cunningham, Elmer N. Searls, and O. B. Brown[1]

Net farm earnings on accounting farms in Farming-Type Area 3 were lower in 1945 than in 1944. The average net earnings were $3,986 in 1945; $4,761 in 1944; $5,855 in 1943; $7,825 in 1942; and $5,999 in 1941 (Table 2). The returns in 1945 were lower than the previous four years but above the average of $2,903 for 1940. The items considered in calculating net earnings include cash balance, inventory change, value of farm products used in the household, and unpaid labor.

Accounting farms in this area had more cash receipts in 1945 than in 1944; this was largely the result of the liquidation through livestock of large supplies of feed and grain that were produced in 1944. Cash expenses were higher in 1945 than in 1944; in fact, so much higher that the cash balance in 1945 was less than in 1944. The increase in expenses came from larger expenditures for power and machinery and for purchases of cattle. As shown in Table 2, charges for unpaid labor (family and operator) more than doubled from 1941 to 1945; this increase did not come from the use of more labor but because the average monthly wage rate in most of the area increased from $55 in 1941 to $125 in 1945.

The averages presented in this report provide a good local yardstick of efficiency. From Tables 1 through 7, each cooperator may determine why his return for 1945 was above or below the average of other farms in the area. When efficiency factors are affected by size, source of income, value of improved land, or amount of feed fed, the records are sorted into groups with comparable conditions and averages are run for each group (Table 1). This practice permits you to compare your farm with others that are more similar to yours than is the entire group.

The accounting farms were larger than the average of all the farms in the area; the crop yields were above average; and the farm operators were more skillful than average in the organization and operation of their farms. Therefore, the figures contained in this report represent conditions which are better than average for the area.

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[1] In cooperation with the following county farm advisers (number indicates records from each county):

Bureau	(17)	Paul V. Dean	McDonough	(30)	R. G. Benbow
Fulton	(20)	J. E. Watt	Mercer	(10)	E. M. Edwards
Hancock	(22)	L. L. Norton	Peoria	(14)	I. F. Green
Henderson	(26)	A. J. Rehling	(J. L. Diamond since April 1, 1946)		
Henry	(33)	H. K. Danforth	Stark	(11)	Wayne A. Gilbert
Knox	(27)	A. R. Kemp	Warren	(18)	E. H. Walworth
Marshall-Putnam	(12)	L. J. Hager			

TABLE 1.--FACTORS USED TO ANALYZE THE FARM BUSINESS
Accounting Farms in Farming-Type Area 3, 1945

Item	Your farm	Standards for your farm	Average of 226 farms
(Those capitalized used in chart on opposite page)			
RATE EARNED ON INVESTMENT	____%	9.9 %	9.9 %
Labor and management earnings	$____	$____ c/	$3379
ACRES IN FARM	____	225	225
Acres in crops	____	156	156
GROSS EARNINGS PER ACRE	$____	$____ a/	$ 47.52
GROSS EXPENSE PER ACRE	____	____	29.83
Net earnings per acre	$____	$____	$ 17.69
Investments			
Value of improved land per acre	$____	$____ a/	$ 109
Total investment per acre	____	____	178
Land use			
Percent of land area tillable	____	____ a/	81.3
Percent of tillable land in:			
Corn	____	____ a/	41.2
Oats	____	____	19.6
Wheat	____	____	1.2
Soybeans for grain	____	____	11.0
HAY AND PASTURE (incl. cl. & gr. seed crops)	____	____	25.5
Other crops (includes idle tillable land)	____	____	1.5
Crop yields			
CORN, BU	____	____ a/	48.2
OATS, BU	____	____	47.3
WHEAT, BU	____	____	23.6
SOYBEANS, BU	____	____	21.8
Livestock factors			
FEED FED PER ACRE TO PRODUCTIVE LIVESTOCK	$____	$____ b/	$ 28.53
RETURNS PER $100 FEED FED	$____	$____	$ 146
Number of cows milked	____	____	7.5 e/
DAIRY RETURNS PER COW MILKED	$____	$____	$ 171
Number of litters farrowed	____	____	27 f/
NUMBER OF PIGS WEANED PER LITTER	____	____	6.3
Returns per litter farrowed	$____	$____	$ 216
Number of hens	____	____	124 g/
EGG RETURNS PER HEN	$____	$____	$ 3.94
Expense factors			
Labor: COST PER CROP ACRE	$____	$____ d/	$ 15.78
" Total months of labor	____	____ c/	20.2
POWER AND MACHINERY COST PER CROP ACRE	$____	$____ d/	$ 10.66
Land improvement cost per acre	____	____ a/	.97
BUILDINGS COST PER ACRE	____	____ c/	1.53
Land tax per acre	____	____	1.28

a/ Table 3, value of improved land.
b/ Table 4, source of income.
c/ Table 5, size of farm.
d/ Table 6, size of farm and amount of feed fed per acre.
e/ Farms with over $299 dairy sales.
f/ Farms buying feeder pigs excluded.
g/ Farms with more than 49 hens.

USE THIS CHART TO STUDY YOUR BUSINESS
Accounting Farms in Farming-Type Area 3, 1945

The double line across the middle of the page represents the average for farms which are similar to your farm for the indicated factor. By drawing a line across each column at the place where your farm stands in that factor, you can compare your efficiency with that of other similar accounting farms in your area.

				Factors that affect earnings											Factors that affect expenses		
					Crop yields				Livestock							
Rate earned on investment, percent	Acres in farm	Gross earnings per acre	Gross expenses per acre	Percent of tillable land in hay and pasture	Corn, bu.	Oats, bu.	Wheat, bu.	Soybeans, bu.	Feed fed per acre to prod. livestock	Returns per $100 feed fed prod. l.s.	Dairy returns per cow milked	No. of pigs weaned per litter	Egg returns per hen	Labor cost per crop acre	Power and machinery cost per crop acre	Buildings cost per acre
24.9	425															
21.9	385															
18.9	345															
15.9	305															
12.9	265															
9.9	225															
6.9	185															
3.9	145															
.9	105															
-2.1	65															
-5.1	25															
* 3%	40	$6	$3	5%	5	5	2	2	$5	$10	$20	.5	$.30	$2	$2	$.25

*Each space between lines represents the value indicated at bottom of each column.

(Higher values are recorded above the center of the page and lower values below, except for expenses, which are recorded in the opposite direction).

TABLE 2.--INVESTMENTS, INVENTORY CHANGES, CASH EXPENSES, CASH RECEIPTS, AND EARNINGS
Accounting Farms in Farming-Type Area 3, 1945

Item	Capital investments		Change in inventory	
	Your farm	Average of 226 farms	Your farm	Average of 226 farms
Land	$	$ 22341	$ --	$ --
Land improvements		793		117
Farm buildings		4127		-44
Horses		157		-49
Prod. l.s.: Cattle		3116		-202
Hogs		1980		294
Sheep		190		114
Poultry		137		-1
Total productive livestock	( )	(5423)	( )	(205)
Feed, grain, and seeds		4643		-569
Machinery and equipment		2540		241
Automobile (farm share)		239		-37
Totals	$	$ 40263	$	$ -136

Item	Cash expenses		Cash receipts	
	Your farm	Average of 226 farms	Your farm	Average of 226 farms
Land improvements	$	$ 338	$	$ 2
Farm buildings		313		12
Horses		15		24
Prod. l.s.: Cattle		1915		4456
Dairy sales	--	--		777
Hogs		409		5431
Sheep		223		281
Poultry		55		195
Egg sales	--	--		356
Total productive livestock	( )	(2602)	( )	(11496)
Feed, grain, and seeds		2665		2748
Machinery and equipment		1879		305
Automobile (farm share)		171		17
Livestock expense		128	--	--
A.A.A. receipts	--	--		109
Labor		715		29
Taxes		366		--
Miscellaneous		43		3
Totals	$	$ 9235	$	$ 14745

Item	Earnings					
	Your farm	Annual averages				
		1945	1944	1943	1942*	1941*
Cash balance	$	$ 5510	$ 5622	$ 5808	$ 5933	$ 3772
Inventory change		-136	498	1127	2565	2698
Farm products used in household		381	382	376	366	293
RECEIPTS LESS EXPENSES	$	$ 5755	$ 6502	$ 7311	$ 8864	$ 6763
Family labor		363	394	336	271	168
RETURN FOR CAPITAL, LABOR & MGT	$	$ 5392	$ 6108	$ 6975	$ 8593	$ 6595
Operator's labor		1406	1347	1120	768	596
NET EARNINGS (Return for cap.& Mgt.)	$	$ 3986	$ 4761	$ 5855	$ 7825	$ 5999
RATE EARNED ON INVESTMENT	%	9.9%	12.0%	15.8%	18.8%	15.9%
Interest on investment at 5 percent	$	$ 2013	$ 1982	$ 1849	$ 2085	$ 1881
LABOR AND MANAGEMENT EARNINGS		3379	4126	5126	6508	4714

* Includes Farm Bureau Farm Management Service records.

Inventory changes. The year 1945 was the first year that inventories have decreased in this area since 1932. The 1945 decrease in inventory was actually a physical decrease; much of the annual increases in inventories since 1932 have come about because of the increases in price levels since that year. The feed, grain, and seed account was $569 less at the end of 1945 than at the beginning; most of this decrease was due to smaller amounts of corn (Table 3).

TABLE 3.--INVENTORIES OF GRAIN ON HAND
Accounting Farms in Farming-Type Area 3, 1945

Grain	Beginning of year (bushels)	End of year (bushels)	Change (bushels)
Corn................	3 384	2 601	-783
Oats................	594	949	+355
Soybeans............	85	95	+10

Size of farm. As the average size of farm increased from 104 acres to 497 acres, the cost per crop acre for labor decreased from $23.88 to $11.07, and for power and machinery it decreased from $14.56 to $7.76. Likewise, the trend in feed fed per acre to productive livestock was downward as the size of farms increased (Table 4).

In comparing labor and management earnings for the various size groups, one should consider that, in general, such earnings increase as the size of farms increase when the average rate earned on investment is 5 percent or more, but that this earning situation is reversed when the average rate earned is less than 5 percent.

TABLE 4.--FARM EARNINGS AND OTHER FACTORS RELATED TO SIZE OF FARM
Accounting Farms in Farming-Type Area 3, 1945

Item	Total acres in farm					
	50 to 120	121 to 200	201 to 280	281 to 360	361 to 441	441 to 560
Number of farms..........	24	95	59	26	12	10
Acres in farm............	104	165	243	329	402	497
Acres in crops...........	71	118	165	241	264	321
Rate earned on investment	7.3%	10.1%	9.8%	10.5%	8.5%	12.0%
Labor and mgt. earnings..	$1831	$3036	$3399	$4594	$4088	$6226
Net earnings per acre....	14.26	19.39	16.92	18.62	15.87	16.47
Labor cost per crop acre.	$ 23.88	$ 17.99	$ 14.89	$ 13.26	$ 16.08	$ 11.07
Total months of labor....	13.5	17.2	20.4	26.3	35.4	28.7
Power & machinery cost per crop acre...........	$ 14.56	$ 11.89	$ 10.27	$ 9.23	$ 11.13	$ 7.76
Buildings cost per acre..	$ 1.72	$ 1.60	$ 1.57	$ 1.37	$ 1.93	$ 1.03
Feed fed per acre........	$ 37.01	$ 32.35	$ 28.78	$ 24.27	$ 30.91	$ 17.26

Land use. As the average per-acre value of improved land increased from $45 to $152, the tillable land increased from 56.6 percent to 88.4 percent; the tillable land in corn and soybeans increased from 36.3 percent to 55.6 percent; and the net earnings per acre increased from $.19 to $21.79 (Table 5). On the other hand, total hay and pasture acreages decreased from 43.0 percent to 22.0 percent.

TABLE 5.--USE OF TILLABLE LAND AND OTHER FACTORS RELATED TO VALUE OF IMPROVED LAND
Accounting Farms in Farming-Type Area 3, 1945

Item	Value of improved land					
	$40 to $52	$53 to $72	$73 to $92	$93 to $112	$113 to $132	$133 to $200
Number of farms	8	20	41	61	55	41
Value of improved land	$ 45	$ 65	$ 84	$102	$122	$152
Acres in farm	214	192	250	244	214	208
Rate earned on investment	.2%	8.4%	10.7%	9.8%	10.9%	9.2%
Percent of land area tillable	56.6	63.4	76.4	82.4	88.2	88.4
Percent of tillable land in:						
Corn	31.3	45.3	37.5	40.9	40.3	46.5
Oats	15.5	18.1	19.9	19.1	19.9	20.6
Wheat	--	.8	1.4	1.7	1.4	.3
Soybeans for grain	5.0	9.9	11.9	11.5	12.0	9.1
Hay & Pas. (incl. cl.& gr. seed)	43.0	24.1	26.8	25.1	25.2	22.0
Other crops (incl.idle till.land)	5.2	1.8	2.5	1.7	1.2	1.5
Crop yields:						
Corn, bu	34.3	42.0	46.1	47.0	50.7	51.6
Oats, bu	40.4	37.1	43.3	47.3	49.3	51.9
Wheat, bu	--	15.9	22.6	28.0	19.4	19.1
Soybeans, bu	12.2	15.3	21.6	23.6	20.7	23.9
Gross earnings per acre	$ 23.03	$ 37.90	$ 44.91	$ 46.35	$ 54.93	$ 51.77
Gross expense per acre	22.84	27.95	29.12	29.68	32.16	29.98
Net earnings per acre	$ .19	$ 9.95	$ 15.79	$ 16.67	$ 22.77	$ 21.79
Land improvement cost per acre	$ .62	$ .99	$ .76	$ 1.02	$ 1.09	$ 1.03
Land tax per acre	.85	1.13	1.15	1.26	1.45	1.34
Total investment per acre	78	118	147	171	208	237

Crop yields. Per-acre yields of corn, oats, and soybeans tended to increase as the land value increased (Table 5). The corn yield for accounting farms in Area 3 averaged eleven bushels less in 1945 than in 1944. This was nineteen bushels below the 1942-1943 average and twenty bushels under the average for 1941.

Source of income. Relative profits from various types of farming change from year to year depending on conditions affecting production and price, therefore, averages for one year should not be the basis for reorganizing the farm business. There was little difference in the rate earned on investment on the farms falling into the various groups except for the general farms. The hog farmers weaned more pigs per litter and received the largest hog returns per litter (Table 6). The grain farmers in this area were not as specialized as was found in the cash grain area.

TABLE 6.--SOURCE OF INCOME RELATED TO FARM EARNINGS AND OTHER FACTORS
Accounting Farms in Farming-Type Area 3, 1945

	Source of income			
Item	Grain 40%+	Hogs 40%+	Hogs 40%+ & Cattle 20%+ or vice versa	General farms
Number of farms..................	19	97	67	43
Acres in farm.....................	249	202	250	229
Rate earned on investment.........	10.4 %	10.5 %	10.3 %	7.8 %
Feed fed per acre to prod. l.s....	$ 10.04	$ 29.64	$ 36.39	$ 22.28
Returns per $100 feed fed.........	147	148	147	140
Number of cows milked.............	5.9	6.5	6.5	12.0
Dairy returns per cow milked......	$181	$168	$152	$184
Number of litters farrowed........	11.9	27.5	33.7	16.1
Number of pigs weaned per litter..	6.0	6.7	6.0	6.1
Returns per litter farrowed.......	$175	$233	$212	$186
Number of hens....................	119	119	114	150
Egg returns per hen...............	$ 4.17	$ 3.98	$ 3.57	$ 4.22

Labor, power and machinery costs per crop acre. Increasing amounts of livestock on farms require larger expenses for labor and for power and machinery. Farmers reduced their labor and power and machinery costs per crop acre by operating more acres (Table 7).

TABLE 7.--LABOR COST AND POWER AND MACHINERY COST PER CROP ACRE FOR DIFFERENT SIZE FARMS AND DIFFERENT AMOUNTS OF FEED FED PER ACRE TO PRODUCTIVE LIVESTOCK
Accounting Farms in Farming-Type Area 3, 1945

	Feed fed per acre				Feed fed per acre			
Acres per farm	Less than $20.00	$20.00 to $27.99	$28.00 to $35.99	$36.00 or more	Less than $20.00	$20.00 to $27.99	$28.00 to $35.99	$36.00 or more
	(labor cost per crop acre)				(Power and machinery cost per crop acre)			
50 to 120	$22.50	$22.70	$24.70	$25.70	$10.40	$11.50	$12.80	$18.90
121 to 200	16.70	17.50	18.20	18.70	10.00	11.00	12.10	14.40
201 to 280	15.20	15.30	15.50	16.70	9.00	9.60	11.00	11.60
281 to 360	12.20	13.60	14.00	14.50	6.30	7.70	10.20	11.40
361 to 560	11.70	12.00	12.90	14.40	5.00	6.70	10.00	10.20

FARM LEASES

In recent years, farm leasing arrangements have been affected by the increased mechanization of farms, higher labor costs, higher land values, lower interest rates, governmental programs, increased number of young men ready to begin farming, and other changing conditions. Many new leases are being written, and old ones are being adjusted.

In order to keep leasing arrangements fair to both landlord and tenant, it is necessary to look at the lease as a whole as well as at its individual parts. The lease is fair only if the landlord and tenant share in the income in proportion to the value of their contributions. This principle is simple, but its application is not easy because of the difficulties in valuing capital, interest rates, unpaid labor, management and other items. In judging the fairness of a farm lease, either current values or long-time normal values must be used alike for all items.

TABLE 8.--CONTRIBUTIONS AND GROSS EARNINGS OF TENANTS AND LANDLORDS ON RENTED FARMS
Accounting Farms in Farming-Type Area 3, 1945

Item	Ninety-six rented farms: Tenant's share	Ninety-six rented farms: Landlord's share
Contributions		
Real estate (residence excluded): $46,101 @ 4%.......	$ ---	$1,844
Operating capital: Tenant, $10,237; Lld., $2,985 @ 5%	512	149
Expenses and net decreases...........................	4,667	1,238
Unpaid labor...	1,674	1
Totals...	$6,853	$3,232
Gross earnings (receipts and net increases)............	$8,492	$4,238
Gross earnings per $100 contributed....................	$ 124	$ 131

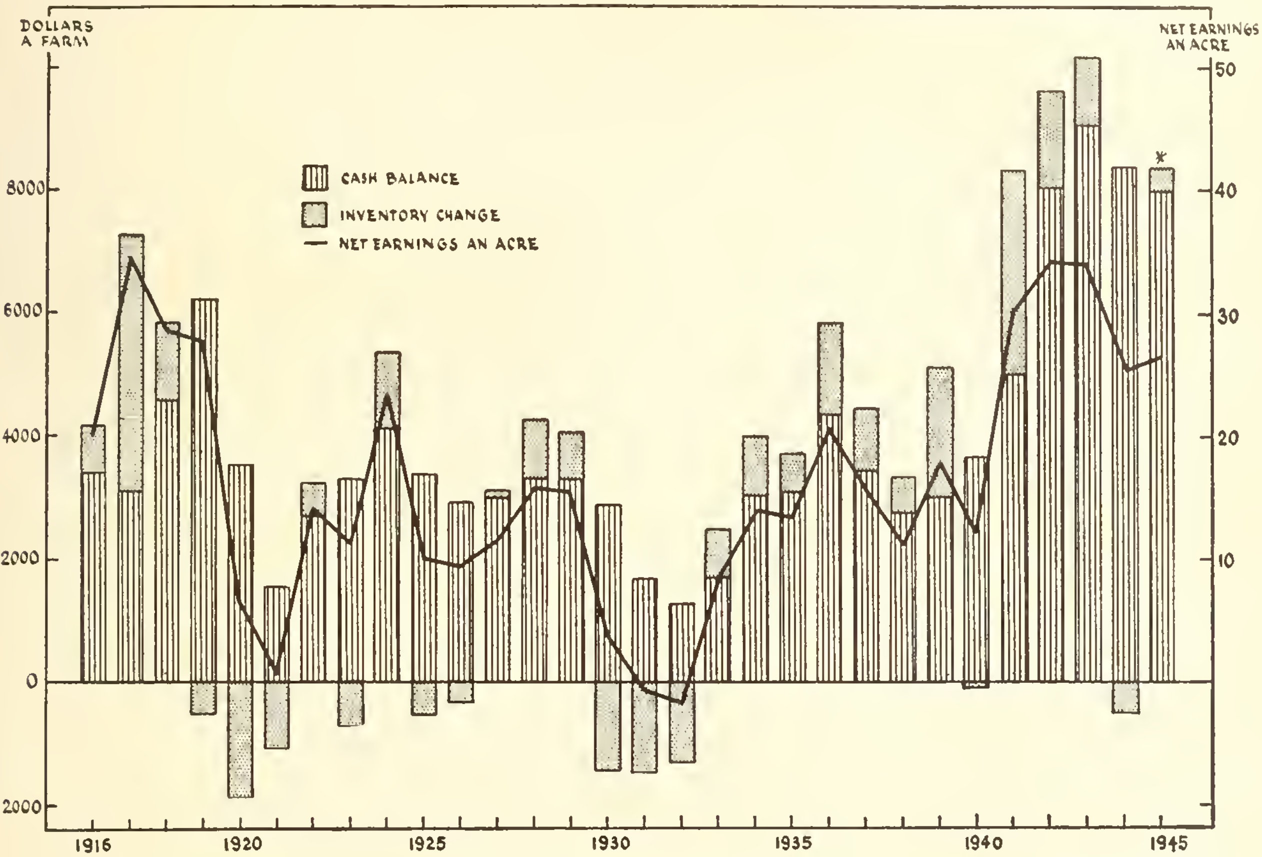
In the analysis given above, real estate values shown on the farm accounts were increased 63 percent to bring them in line with the 1945 market price. This adjustment was made on the basis of the increase in values that took place in Illinois from 1935-1939 to 1945. In the farm account books real estate values averaged $121 an acre in 1945 and $114 in 1935-1939. The interest rate on real estate was also adjusted from five to four percent to put it in line with the current mortgage rate.

Although this analysis shows that the gross earnings per $100 contributed were $124 for the tenant and $131 for the landlord, the reader is cautioned against (1) assuming that all landlords profited more than their tenants, and (2) concluding that results would be the same in any other year with the same leases in force but with changed price relationships and other conditions. Furthermore, in the above analysis for 1945 the rental value of the residence is not included in the tenant's gross earnings nor in the landlord's contributions because the records did not furnish the necessary information to make this computation. Had this item been included, the gross earnings per $100 contributed by landlord and tenant would have been more nearly equal.

The Illinois crop-share and livestock-share lease forms have recently been revised. For copies, see your farm adviser.

A GRAPHIC REVIEW OF FARM EARNINGS AND RELATED INFORMATION FOR ACCOUNTING FARMS IN EAST CENTRAL ILLINOIS, 1916-1945[1]

Net farm earnings, as shown on the front cover and on this page, are calculated by subtracting value of unpaid labor from the sum of: (1) Cash balance, (2) inventory change, and (3) value of farm products used in the household. On the front cover and in Chart 1 net farm earnings are expressed on an acre basis. In Chart 1 the cash balance and inventory change are shown on the total farm basis.



* *Estimate for 1945*

Chart 1. Net Earnings an Acre; Cash Balance and Inventory Change a Farm

High farm earnings continued longer during World War II than during World War I. Furthermore, earnings were more fully realized in cash during the last war than during World War I. This situation resulted in the retirement of many farm mortgages and in the accumulation of cash reserves which foreshadow inflationary danger — especially in the land market.

During the 30 years, 1916-1945, inventories increased 19 times and decreased 11; all but two of the decreases were during the first 17 years. Increased inventories since 1933 have been due to increased production and higher prices.

Average value of unpaid labor, which is not shown in Chart 1, increased from $360 in 1916 to $1,800 in 1945 without any material increase in the amount of labor used. Whereas, the value of farm products used in the household varied from year to year depending principally on price changes and averaged $322.

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[1] East Central Illinois is the only area for which adequate records are available for 30 years, including the two World War periods.

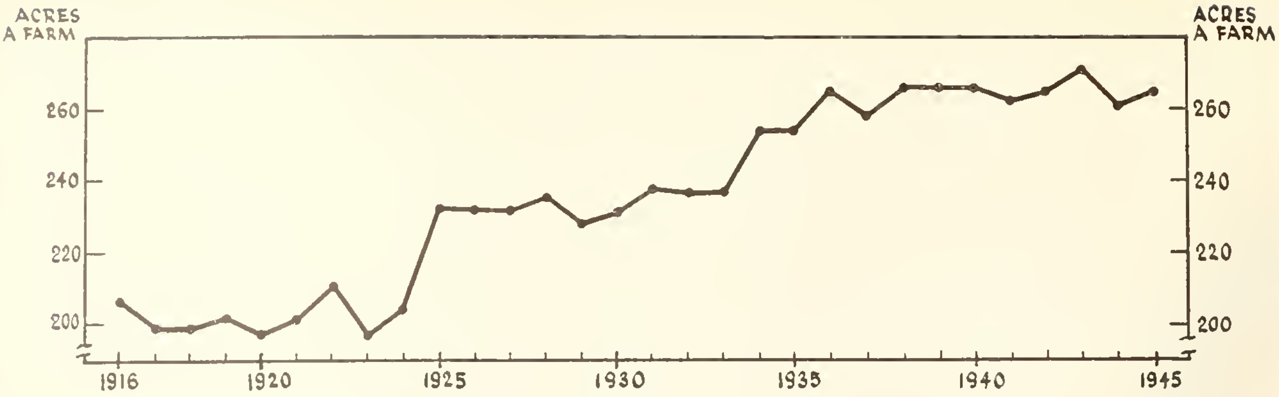


Chart 2. Variation in Size of Farms

Thirty years ago, 1916 to 1920, the accounting farms of East Central Illinois averaged 200 acres. More recently, 1941 to 1945, these farms averaged 265 acres — a 32 percent increase in size. The additional acres have added volume to the business and resulted in larger income per farm during World War II than during World War I even though prices of farm products were lower during World War II. This change in size is due primarily to the introduction of improved power, machinery, and equipment which makes it possible for the same labor to handle more land. The months of man labor used a farm has shown no material change.

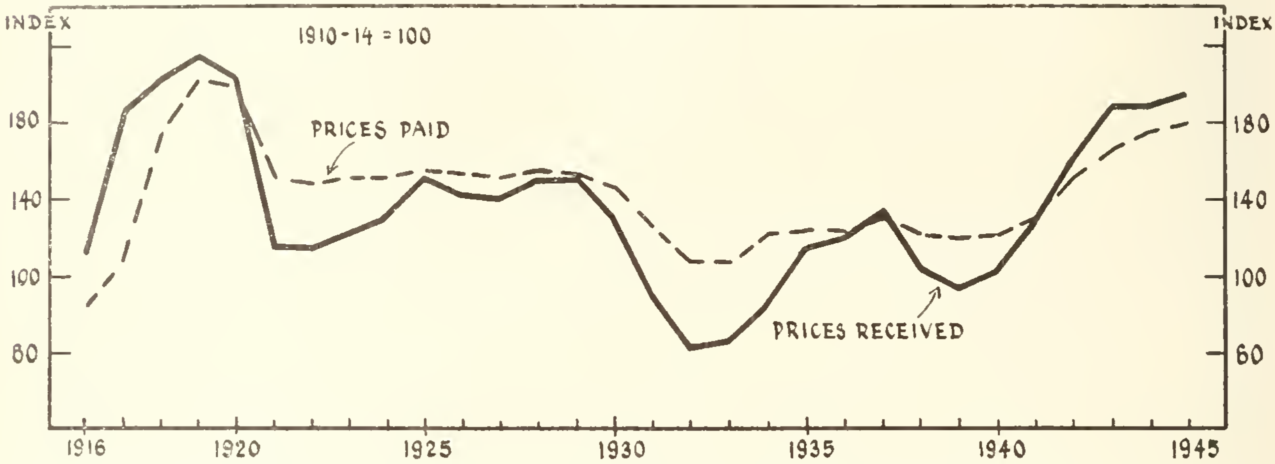


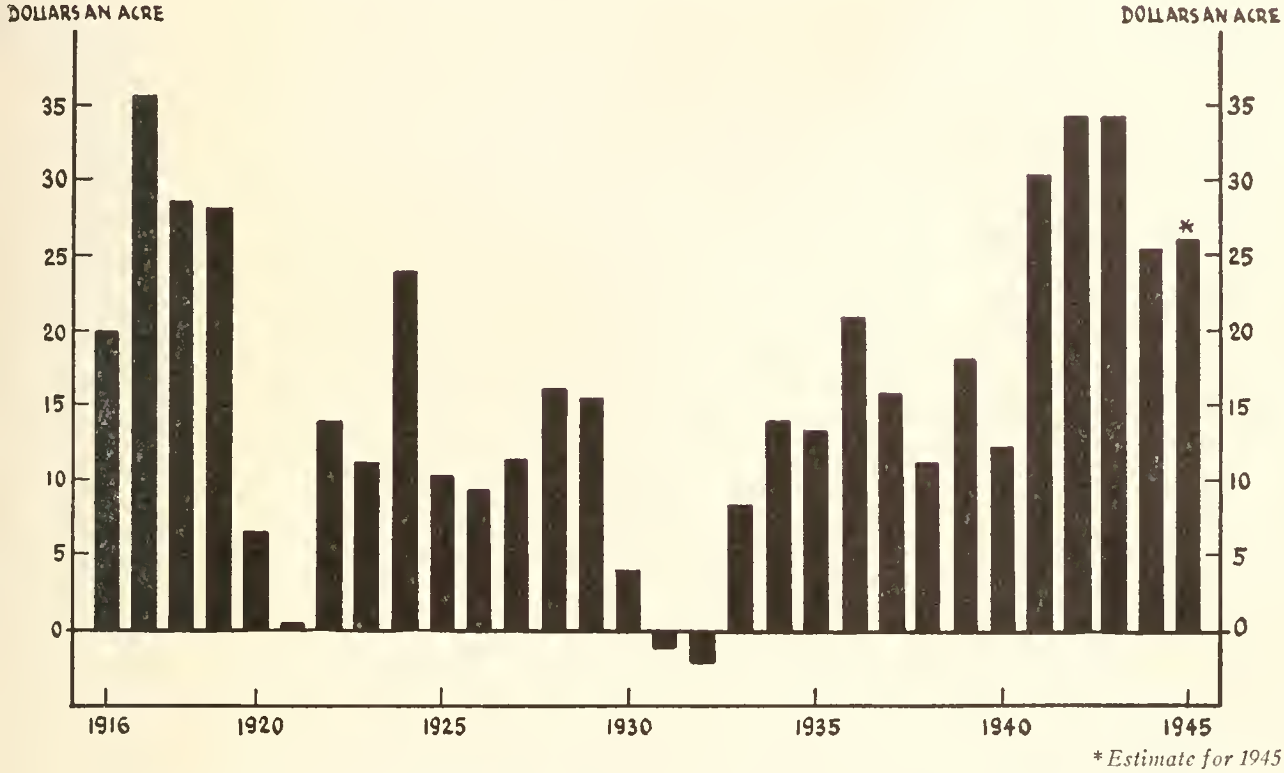
Chart 3. Prices Received by Illinois Farmers and Prices Paid by Farmers in the United States, 1916-1945

The only times during the past 30 years when prices received were appreciably above prices paid were during World Wars I and II. The 1937 year of favorable price relationships followed a drought which left farmers with small supplies of products to sell. Although prices received were lower during World War II than during World War I, net earnings an acre were at about the same level because of increased efficiency and higher production.

The price support program of 90 percent of parity or above for many farm products for two calendar years following the end of World War II will help cushion any decline that may take place in farm prices. Prices for things the farmer must buy, however, may be expected to remain relatively high for several years. Important factors affecting prices will be employment, national income and foreign demand for farm products.

Cooperative Extension Work in Agriculture and Home Economics: University of Illinois, College of Agriculture, and the United States Department of Agriculture cooperating. H. P. Rusk, *Director*. Acts approved by Congress May 8 and June 30, 1914. (32409)

YOUR FARM BUSINESS REPORT 1945



NET EARNINGS AN ACRE, EAST CENTRAL ILLINOIS ACCOUNTING FARMS, 1916-1945

Net farm earnings an acre from 1916 through 1945 varied from a gain of $35.51 in 1917 to a loss of $1.96 in 1932. Following World War I, earnings remained relatively high for almost two years, then dropped precipitously in 1920 and in 1921. For further information on long-time changes in earnings of Illinois accounting farms, see the inside back cover of this report.

FARMING-TYPE AREA FOUR

East Central Cash Grain Area

NAME____

DEPARTMENT OF AGRICULTURAL ECONOMICS, UNIVERSITY OF ILLINOIS
COLLEGE OF AGRICULTURE, EXTENSION SERVICE IN AGRICULTURE AND HOME ECONOMICS
URBANA, ILLINOIS

AE-2388

UNIVERSITY *of* ILLINOIS
COLLEGE *of* AGRICULTURE
AGRICULTURAL EXPERIMENT STATION
URBANA, ILLINOIS

DEPARTMENT *of*
AGRICULTURAL ECONOMICS

Dear Cooperator:

This is the thirtieth annual report of farm account records kept by Illinois farmers enrolled in the farm accounting extension project conducted by this department. The earnings on farms, both during World War I and World War II, show some interesting comparisons which may well serve as a basis for anticipating a reduction in earnings during postwar years after deficits in food supplies have been made up.

The charts on the front and back cover pages of the report set forth the results from farm accounts in East Central Illinois. This is the only area of the state for which records were available for the entire 30-year period, but they are indicative of farm conditions throughout the state.

Of even greater importance to you than these results of the past 30 years, are the results from your own farm in comparison with the data from similar farms in your own section of the state, and with the data from your own farm in previous years.

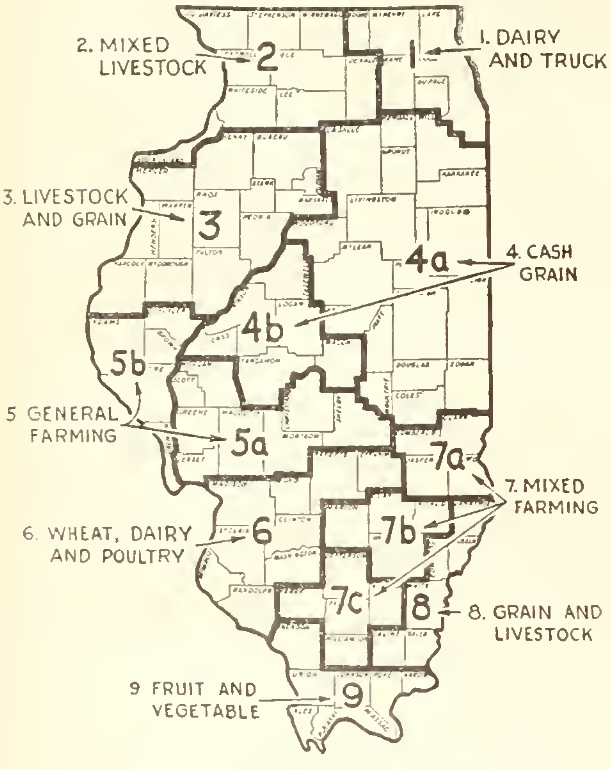
Farm accounts have a number of uses among which are the following: First, the results from a group of farms serve as a standard or yardstick with which to measure your own accomplishments; second, analyzed over a period of years and studied in the light of existing economic conditions, they serve as a guide in planning for the future; and, third, in times of rapidly changing costs of production they serve as a guide for adjusting farm leases or father-son business agreements on an equitable basis.

The map on this page will identify the area for which this report is prepared.

We trust that this report will prove valuable to you.

Very truly yours,

H. C. M. CASE
Head of Department



THE NINE MAJOR TYPE-OF-FARMING AREAS IN ILLINOIS

Annual Farm Business Report

ONE HUNDRED NINETY-THREE FARMS IN FARMING-TYPE AREA 4, 1945

J. B. Cunningham , Elmer N. Searls, and O. B. Brown[1]

Net farm earnings on accounting farms in Farming-Type Area 4 were slightly higher in 1945 than in 1944. The average net earnings were $5,351 in 1945; $5,290 in 1944; $6,905 in 1943; $7,244 in 1942; and $6,600 in 1941 (Table 2). The items considered in calculating net earnings include cash balance, inventory change, value of farm products used in the household, and unpaid labor.

A lower cash balance in 1945 than in 1944 was more than offset by inventory changes; the value of farm products used in the household was not significantly different for the two years; and the value of family and operator's labor was somewhat higher in 1945 than in 1944. In comparing charges for unpaid labor (family and operator's) in 1945 with those for previous years it should be noted that the value more than doubled from 1941 to 1945. This increase did not come from the use of more labor but because the average monthly wage rate in most of the area increased from $55 in 1941 to $120 in 1945.

The averages presented in this report provide a good local yardstick of efficiency. From tables 1 through 7, each cooperator may determine why his return for 1945 was above or below the average of other farms in the area. When efficiency factors are effected by size, source of income, value of improved land, or amount of feed fed, the records are sorted into groups with comparable conditions and averages are run for each group (Table 1). This practice permits you to compare your farm with others that are more similar to yours than is the entire group.

The accounting farms in this report were larger than the average of all the farms in the area; the crop yields were above average; and the farm operators were more skillful than average in the organization and operation of their farms. Therefore, the figures contained in this report represent conditions which are better than average for the area.

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[1] In cooperation with the following county farm advisers:

Cass, G. H. Husted; Champaign, J. E. Harris; Douglas, J. Q. Scott; Ford, H. D. Triplett (A. B. Rowand since Nov. 1, 1945); Iroquois, H. D. Van Matre (K. R. Imig since May 1, 1945); Kankakee, G. T. Swaim; Kendall, W. P. Miller; LaSalle, F. A. Painter; Logan, N. H. Anderson; McLean, O. L. Welsh; Macon, J. R. Gilkey; Mason, R. V. Watson; Menard, L. W. Chalcraft; Moultrie, P. M. Krows; Sangamon, Edwin Bay; Vermilion, I. E. Parett; Will, J. H. Brock; Woodford, T. Hugh Brock.

TABLE 1.--FACTORS USED TO ANALYZE THE FARM BUSINESS
Accounting Farms in Farming-Type Area 4, 1945

Item	Your farm	Standards for your farm	Average of 193 farms
(Those capitalized used in chart on opposite page)			
RATE EARNED ON INVESTMENT	%	12.1 %	12.1 %
Labor and management earnings	$	$ a/	$4500
ACRES IN FARM		250	250
Acres in crops		198	198
GROSS EARNINGS PER ACRE	$	$ b/	$ 42.64
GROSS EXPENSE PER ACRE			21.22
Net earnings per acre	$	$	$ 21.42
Investments			
Value of improved land per acre	$	$ b/	$ 119
Total investment per acre			177
Land use			
Percent of land area tillable		b/	90.6
Percent of tillable land in:			
Corn		b/	38.4
Oats			16.4
Wheat			3.5
Soybeans for grain			20.9
Hay and Pasture (incl. cl. & gr. seed crops)			19.2
Other crops (includes idle tillable land)			1.6
Crop yields			
CORN, BU		b/	53.4
OATS, BU			48.6
WHEAT, BU			23.4
SOYBEANS, BU			21.5
Livestock factors			
FEED FED PER ACRE TO PRODUCTIVE LIVESTOCK	$	$ c/	$ 14.43
RETURNS PER $100 FEED FED	$	$	$ 150
Number of cows milked			8.7 e/
DAIRY RETURNS PER COW MILKED	$	$	$ 199
Number of litters farrowed			14 f/
NUMBER OF PIGS WEANED PER LITTER			6.1
Returns per litter farrowed	$	$	$ 202
Number of hens			133 g/
EGG RETURNS PER HEN			3.90
Expense factors			
Labor: COST PER CROP ACRE	$	$ d/	$ 11.96
" Total months of labor		a/	19.7
POWER AND MACHINERY COST PER CROP ACRE	$	$ d/	$ 8.58
Land improvement cost per acre		b/	.79
BUILDINGS COST PER ACRE		a/	1.13
Land tax per acre		b/	1.41

a/ Table 4, size of farm.
b Table 5, value of improved land.
c/ Table 6, source of income.
d/ Table 7, size of farm and feed fed.
e/ Farms with over $299 dairy sales.
f/ Farms buying feeder pigs excluded.
g/ Farms with over 49 hens in flock.

USE THIS CHART TO STUDY YOUR BUSINESS

Accounting Farms in Farming-Type Area 4, 1945

The double line across the middle of the page represents the average for farms which are similar to your farm for the indicated factor. By drawing a line across each column at the place where your farm stands in that factor, you can compare your efficiency with that of other similar accounting farms in your area.

				Factors that affect earnings										Factors that affect expenses		
					Crop yields				Livestock							
Rate earned on investment, percent	Acres in farm	Gross earnings per acre	Gross expenses per acre	Percent of tillable land in hay and pasture	Corn, bu.	Oats, bu.	Wheat, bu.	Soybeans, bu.	Feed fed per acre to prod. livestock	Returns per $100 feed fed prod. l.s.	Dairy returns per cow milked	No. of pigs weaned per litter	Egg returns per hen	Labor cost per crop acre	Power and machinery cost per crop acre	Buildings cost per acre
27.1	500															
24.1	450															
21.1	400															
18.1	350															
15.1	300															
12.1	250															
9.1	200															
6.1	150															
3.1	100															
.1	50															
-2.9	0															
*3%	50	$10	$5	3%	5	4	2	2	$3	$20	$20	.5	$.25	$1	$1	.25

*Each space between lines represents the value indicated at bottom of each column.

(Higher values are recorded above the center of the page and lower values below, except for expenses, which are recorded in the opposite direction.)

TABLE 2.--INVESTMENTS, INVENTORY CHANGES, CASH EXPENSES, CASH RECEIPTS, AND EARNINGS
Accounting Farms in Farming-Type Area 4, 1945

Item	Capital investments: Your farm	Capital investments: Average of 193 farms	Change in inventory: Your farm	Change in inventory: Average of 193 farms
Land	$	$ 28843	$ --	$ --
Land improvements		784		146
Farm buildings		3772		-32
Horses		162		-46
Prod. l.s.: Cattle		2233		-70
Hogs		840		161
Sheep		63		10
Poultry		151		2
Total productive livestock	( )	(3287)	( )	(103)
Feed, grain, and seeds		4430		342
Machinery and equipment		2586		53
Automobile (farm share)		238		-45
Totals	$	$ 44102	$	$ 521

Item	Cash expenses: Your farm	Cash expenses: Average of 193 farms	Cash receipts: Your farm	Cash receipts: Average of 193 farms
Land improvements	$	$ 347	$	$ 2
Farm buildings		260		9
Horses		16		32
Prod. l.s.: Cattle		1171		2338
Dairy sales	--	--		1048
Hogs		205		2384
Sheep		30		66
Poultry		62		243
Egg sales	--	--		399
Total productive livestock	( )	(1468)	( )	(6478)
Feed, grain, and seeds		1490		5890
Machinery and equipment		1694		267
Automobile (farm share)		164		9
Livestock expense		87	--	--
A.A.A. receipts	--	--		106
Labor		635		45
Taxes		405	--	--
Miscellaneous		46		2
Totals	$	$ 6612	$	$ 12840

Item	Earnings: Your farm	Annual averages: 1945	1944	1943	1942*	1941*
Cash balance	$	$ 6228	$ 7100	$ 7205	$ 6200	$ 4283
Inventory change		521	-574	688	1705	2801
Farm products used in household		366	389	371	344	284
RECEIPTS LESS EXPENSES	$	$ 7115	$ 6915	$ 8264	$ 8249	$ 7368
Family labor		410	383	344	242	178
RETURN FOR CAPITAL, LABOR & MGT.	$	$ 6705	$ 6532	$ 7920	$ 8007	$ 7190
Operator's labor		1354	1242	1015	763	590
NET EARNINGS (Return for cap. & Mgt.)	$	$ 5351	$ 5290	$ 6905	$ 7244	$ 6600
RATE EARNED ON INVESTMENT	%	12.1%	10.9%	15.2%	15.5%	14.7%
Interest on investment at 5 percent	$	$ 2205	$ 2421	$ 2274	$ 2335	$ 2243
LABOR AND MANAGEMENT EARNINGS		4500	4111	5646	5672	4947

*Includes Farm Bureau Farm Management Service Records

Inventory changes. In 1945 the farm inventory increased $521 in contrast to a decrease of $574 in 1944, but this increase was much less than the increase of $2801 in 1941 (Table 3). The 1945 inventory increase was largely due to an increase in the feed, grain and seeds account. The average amounts of corn, oats, wheat and soybeans on hand in Area 4 at the two inventory periods are shown in the following table:

TABLE 3.--INVENTORIES OF GRAIN ON HAND
Accounting Farms in Farming-Type Area 4, 1945

Grain	Beginning of year (bushels)	End of year (bushels)	Change (bushels)
Corn................	3 135	3 337	+202
Oats................	627	891	+264
Wheat...............	10	9	-1
Soybeans............	182	132	-50

Size of farm. As the average size of farm increased from 104 acres to 497 acres, the cost per crop acre for labor decreased from $26.69 to $8.78, and for power and machinery it decreased from $13.52 to $7.27. Likewise, the trend in building cost per acre was downward as the size of farms increased (Table 4).

In comparing labor and management earnings for the various size groups, one should consider that, in general, such earnings increase as the size of farms increase when the average rate earned on investment is 5 percent or more, but that this earning situation is reversed when the average rate earned is less than 5 percent.

TABLE 4.--FARM EARNINGS AND OTHER FACTORS RELATED TO SIZE OF FARM
Accounting Farms in Farming-Type Area 4, 1945

Item	Total acres in farm					
	80 to 120	121 to 200	201 to 280	281 to 360	361 to 440	441 to 600
Number of farms..........	13	72	52	25	14	17
Acres in farm............	104	169	243	320	401	497
Acres in crops...........	79	134	196	262	323	369
Rate earned on investment	7.5%	11.4%	12.1%	12.5%	13.2%	13.5%
Labor and mgt. earnings..	$1949	$3366	$4470	$5638	$6671	$7888
Net earnings per acre....	16.14	20.97	21.84	22.65	21.95	20.77
Labor cost per crop acre.	$ 26.69	$ 14.95	$ 11.57	$ 10.42	$ 9.75	$ 8.78
Total months of labor....	17.1	16.6	19.0	22.5	26.8	27.7
Power and mach. cost per crop acre.............	$ 13.52	$ 9.69	$ 8.95	$ 7.46	$ 7.71	$ 7.27
Buildings cost per acre..	1.56	1.30	1.22	1.09	1.10	.74
Feed fed per acre to prod. l.s..............	37.24	16.60	16.27	9.75	11.52	11.23

Land use. As the average per-acre value of improved land increased from $54 to $155, the tillable land increased from 78.9 percent to 90.0 percent; the tillable land in corn and soybeans increased from 46.9 percent to 61.4 percent; and the net earnings per acre increased from $8.07 to $24.37 (Table 5). On the other hand, total hay and pasture acreages decreased from 29.9 percent to 16.8 percent.

TABLE 5.--USE OF TILLABLE LAND AND OTHER FACTORS RELATED TO VALUE OF IMPROVED LAND
Accounting Farms in Farming-Type Area 4, 1945

Item	Value of improved land					
	$40 to $62	$63 to $82	$83 to $102	$103 to $122	$123 to $142	$143 to $250
Number of farms....................	7	16	50	23	52	45
Value of improved land............	$ 54	$ 75	$ 97	$113	$132	$155
Acres in farm......................	229	279	232	254	252	258
Rate earned on investment.........	9.2%	11.9%	11.2%	11.7%	13.6%	11.8%
Percent of land area tillable......	78.9	87.4	90.6	89.9	94.0	90.0
Percent of tillable land in:						
Corn............................	26.4	35.9	39.8	42.6	38.0	37.6
Oats............................	13.5	14.7	18.5	17.5	15.5	16.1
Wheat...........................	7.6	11.3	3.0	1.2	2.6	2.8
Soybeans for grain..............	20.5	16.0	17.7	19.3	23.5	23.8
Hay & Pas. (incl. cl.& gr. seed).	29.9	18.9	19.9	18.5	19.4	16.8
Other crops (incl. idle till.land)	2.1	3.2	1.1	.9	1.0	2.9
Crop yields:......						
Corn, bu........................	37.9	44.1	50.1	53.1	56.4	58.2
Oats, bu........................	38.9	38.3	48.5	47.4	48.3	54.0
Wheat, bu.......................	18.6	22.6	18.8	38.4	25.6	24.6
Soybeans, bu....................	17.1	14.9	20.5	21.9	23.5	21.8
Gross earnings per acre...........	$ 28.11	$ 31.65	$ 41.08	$ 45.26	$ 46.86	$ 44.31
Gross expense per acre............	20.04	17.83	23.13	24.51	20.46	19.94
Net earnings per acre	$ 8.07	$ 13.82	$ 17.95	$ 20.75	$ 26.40	$ 24.37
Land improvement cost per acre.....	$ .53	$ .90	$ .82	$ 1.11	$ .77	$ .64
Land tax per acre..................	.98	1.20	1.27	1.45	1.53	1.52
Total investment per acre..........	87	116	160	178	194	207

Crop yields. Per-acre yields of corn, oats, and soybeans tended to increase as the land value increased; to a lesser extent this relationship is true for wheat (Table 5). The corn yield for accounting farms in Area 4 averaged 4.3 bushels higher in 1945 than in 1944 but this was 14.8 bushels below the 1941 average.

Source of income. Relative profits from various types of farming change from year to year, depending on conditions affecting production and price. Therefore, averages for one year should not be the basis for reorganizing the farm business. In 1945 conditions were favorable for grain and dairy farms. The dairymen milked ~~the~~ the largest number of cows and received the largest returns per cow, while the hog and cattle farmers had the largest number of litters farrowed. (Table 6).

TABLE 6.--FARM EARNINGS AND OTHER FACTORS RELATED TO SOURCE OF INCOME
Accounting Farms in Farming-Type Area 4, 1945

Item	Source of income				
	Grain 40%-	Dairy sales 40%+	Hogs only 40%+	Hogs and cattle 40%+	General farms
Number of farms..................	112	10	21	10	40
Acres in farm....................	278	147	200	311	208
Rate earned on investment........	12.8%	12.8%	9.6%	12.6%	10.8%
Feed fed per acre to prod. l.s...	$ 8.26	$ 26.76	$ 29.45	$ 39.93	$ 18.20
Returns per $100 feed fed........	155	204	135	134	153
Number of cows milked............	7.3	16.6	7.4	6.7	9.7
Dairy returns per cow milked.....	$172	$310	$168	$135	$195
Number of litters farrowed.......	9.1	7.2	25.0	42.6	11.6
Number of pigs weaned per litter.	6.4	6.5	6.2	6.3	5.8
Returns per litter farrowed......	$206	$226	$197	$225	$182
Number of hens...................	121	133	141	134	154
Egg returns per hen..............	$ 3.75	$ 5.25	$ 3.84	$ 3.51	$ 4.08

Labor, power and machinery costs per crop acre. Increasing amounts of livestock on farms require larger expenses for labor and for power and machinery. Farmers reduced their labor and power and machinery costs per crop acre by operating more acres (Table 7).

TABLE 7.--LABOR COST AND POWER AND MACHINERY COST PER CROP ACRE FOR DIFFERENT SIZE FARMS AND DIFFERENT AMOUNTS OF FEED FED PER ACRE TO PRODUCTIVE LIVESTOCK
Accounting Farms in Farming-Type Area 4, 1945

Acres per farm	Feed fed per acre				Feed fed per acre			
	Less than $11.00	$11.00 to $17.99	$18.00 to $24.99	$25.00 and more	Less than $11.00	$11.00 to $17.99	$18.00 to $24.99	$25.00 and more
	(Labor cost per crop acre)				(Power and machinery cost per crop acre)			
80 to 120	$13.20	$17.10	$19.30	$24.50	$10.20	$11.60	$11.80	$12.00
121 to 200	11.70	13.51	15.00	18.20	8.80	9.70	10.60	11.30
201 to 280	10.40	11.70	12.90	14.51	7.70	8.70	9.30	9.90
281 to 360	9.30	11.00	11.70	12.20	7.30	7.90	8.90	9.40
361 to 440	8.20	10.10	10.50	11.80	6.60	7.50	8.30	8.70
441 to 600	7.50	9.50	10.00	11.50	5.90	7.00	7.90	8.20

FARM LEASES

In recent years, farm leasing arrangements have been affected by the increased mechanization of farms, higher labor costs, higher land values, lower interest rates, governmental programs, increased number of young men ready to begin farming, and other changing conditions. Many new leases are being written, and old ones are being adjusted.

In order to keep leasing arrangements fair to both landlord and tenant, it is necessary to look at the lease as a whole as well as at its individual parts. The lease is fair only if the landlord and tenant share in the income in proportion to the value of their contributions. This principle is simple, but its application is not easy because of the difficulties in valuing capital, interest rates, unpaid labor, management and other items. In judging the fairness of a farm lease, either current values or long-time normal values must be used alike for all items.

TABLE 8.--CONTRIBUTIONS AND GROSS EARNINGS OF TENANTS AND LANDLORDS ON RENTED FARMS
Accounting Farms in Farming-Type Area 4, 1945

Item	Ninety-nine rented farms	
	Tenant's share	Landlord's share
Contributions		
Real estate (residence excluded): $54,232 @ 4%....	$ ---	$2,169
Operating capital: Tenant, $8,343; Lld.,$2,551 @ 5%	418	128
Expenses and net decreases........................	2,867	761
Unpaid labor......................................	1,828	15
Totals..	$5,113	$3,073
Gross earnings (receipts and net increases)..........	$6,620	$4,312
Gross earnings per $100 contributed..................	$ 130	$ 140

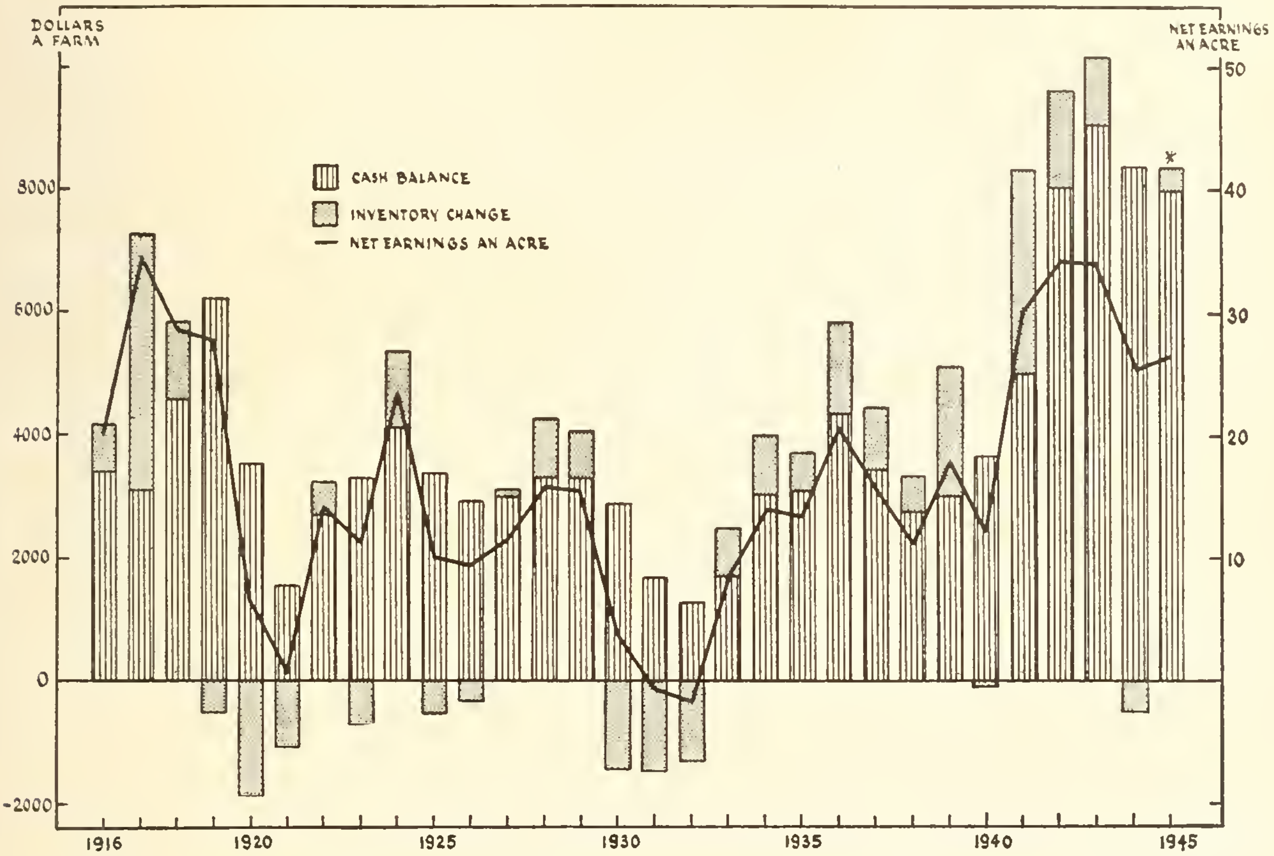
In the analysis given above, real estate values shown on the farm accounts were increased 63 percent to bring them in line with the 1945 market price. This adjustment was made on the basis of the increase in values that took place in Illinois from 1935-1939 to 1945. In the farm account books real estate values averaged $133 an acre in 1945 and $128 in 1935-1939. The interest rate on real estate was also adjusted from five to four percent to put it in line with the current mortgage rate.

Although this analysis shows that the gross earnings per $100 contributed were $130 for the tenant and $140 for the landlord, the reader is cautioned against (1) assuming that all landlords profited more than their tenants, and (2) concluding that results would be the same in any other year with the same leases in force but with changed price relationships and other conditions. Furthermore, in the above analysis for 1945 the rental value of the residence is not included in the tenant's gross earnings nor in the landlord's contributions because the records did not furnish the necessary information to make this computation. Had this item been included, the gross earnings per $100 contributed by landlord and tenant would have been more nearly equal.

The Illinois crop-share and livestock-share lease forms have recently been revised. For copies, see your farm adviser.

A GRAPHIC REVIEW OF FARM EARNINGS AND RELATED INFORMATION FOR ACCOUNTING FARMS IN EAST CENTRAL ILLINOIS, 1916-1945[1]

Net farm earnings, as shown on the front cover and on this page, are calculated by subtracting value of unpaid labor from the sum of: (1) Cash balance, (2) inventory change, and (3) value of farm products used in the household. On the front cover and in Chart 1 net farm earnings are expressed on an acre basis. In Chart 1 the cash balance and inventory change are shown on the total farm basis.



* *Estimate for 1945*

Chart 1. Net Earnings an Acre; Cash Balance and Inventory Change a Farm

High farm earnings continued longer during World War II than during World War I. Furthermore, earnings were more fully realized in cash during the last war than during World War I. This situation resulted in the retirement of many farm mortgages and in the accumulation of cash reserves which foreshadow inflationary danger — especially in the land market.

During the 30 years, 1916-1945, inventories increased 19 times and decreased 11; all but two of the decreases were during the first 17 years. Increased inventories since 1933 have been due to increased production and higher prices.

Average value of unpaid labor, which is not shown in Chart 1, increased from $360 in 1916 to $1,800 in 1945 without any material increase in the amount of labor used. Whereas, the value of farm products used in the household varied from year to year depending principally on price changes and averaged $322.

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[1] East Central Illinois is the only area for which adequate records are available for 30 years, including the two World War periods.

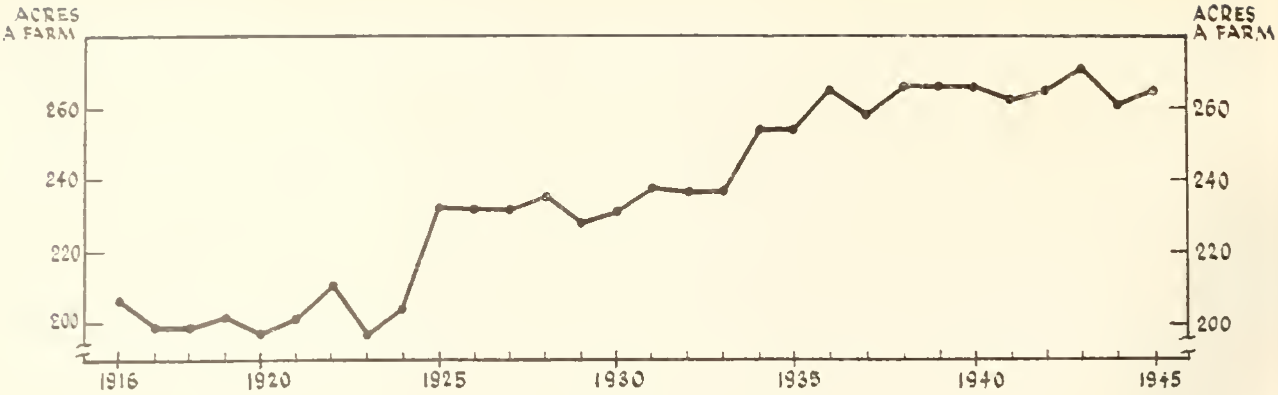


Chart 2. Variation in Size of Farms

Thirty years ago, 1916 to 1920, the accounting farms of East Central Illinois averaged 200 acres. More recently, 1941 to 1945, these farms averaged 265 acres — a 32 percent increase in size. The additional acres have added volume to the business and resulted in larger income per farm during World War II than during World War I even though prices of farm products were lower during World War II. This change in size is due primarily to the introduction of improved power, machinery, and equipment which makes it possible for the same labor to handle more land. The months of man labor used a farm has shown no material change.

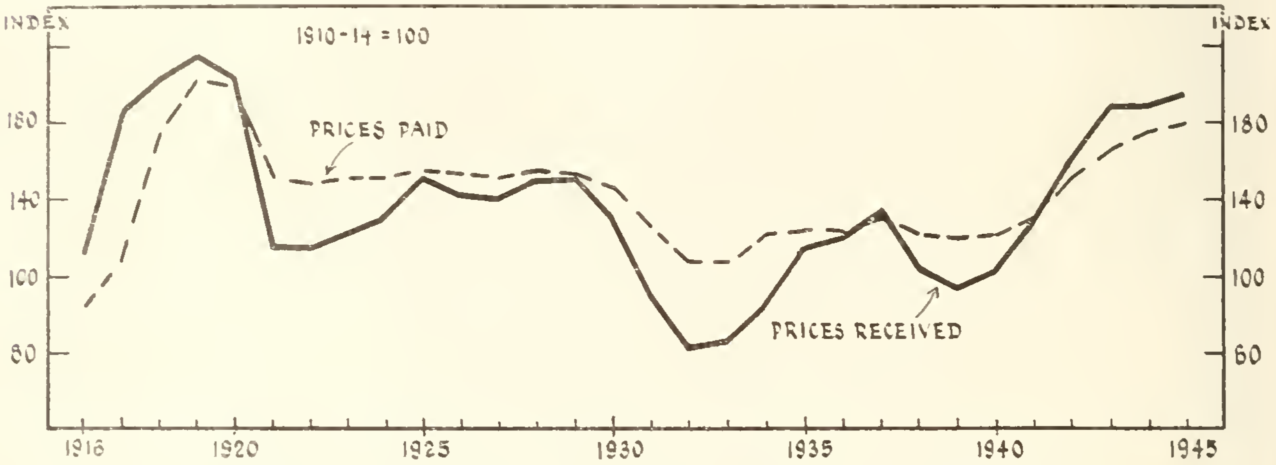


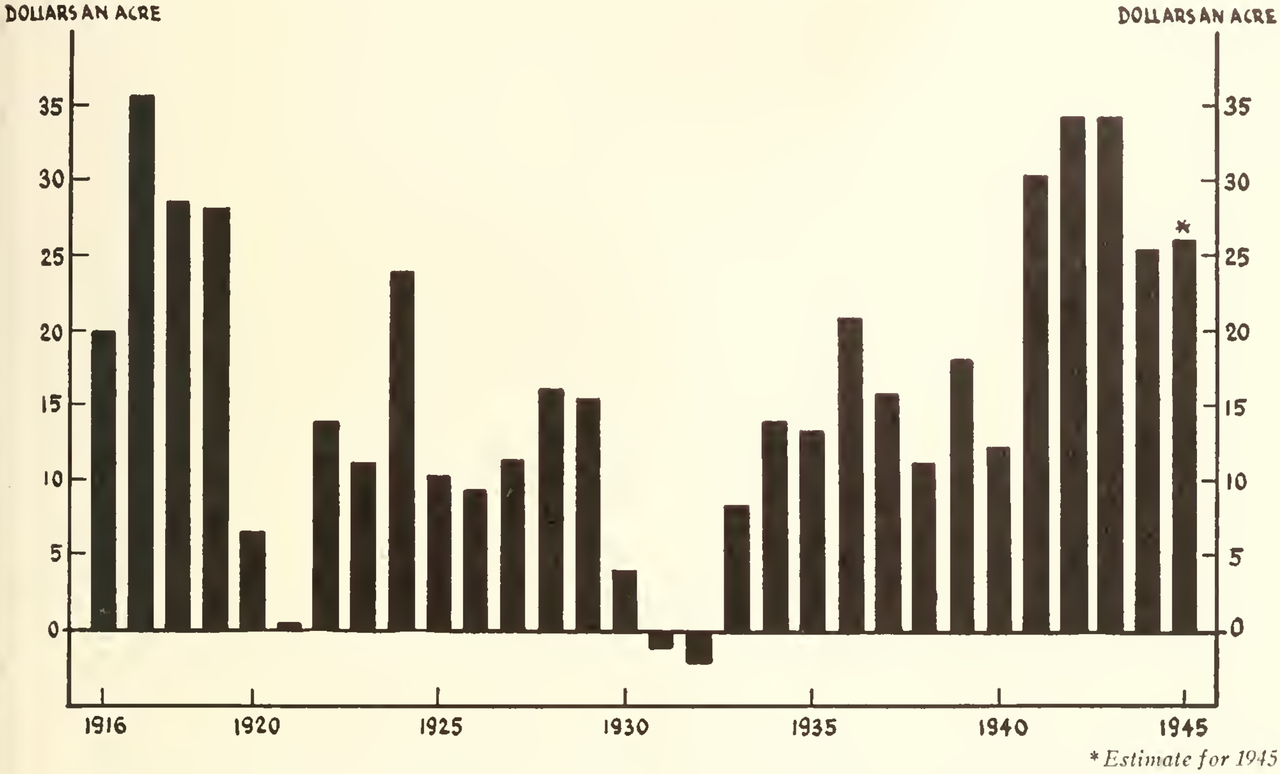
Chart 3. Prices Received by Illinois Farmers and Prices Paid by Farmers in the United States, 1916-1945

The only times during the past 30 years when prices received were appreciably above prices paid were during World Wars I and II. The 1937 year of favorable price relationships followed a drought which left farmers with small supplies of products to sell. Although prices received were lower during World War II than during World War I, net earnings an acre were at about the same level because of increased efficiency and higher production.

The price support program of 90 percent of parity or above for many farm products for two calendar years following the end of World War II will help cushion any decline that may take place in farm prices. Prices for things the farmer must buy, however, may be expected to remain relatively high for several years. Important factors affecting prices will be employment, national income and foreign demand for farm products.

Cooperative Extension Work in Agriculture and Home Economics: University of Illinois, College of Agriculture, and the United States Department of Agriculture cooperating. H. P. Rusk, *Director*. Acts approved by Congress May 8 and June 30, 1914.
(32409)

YOUR FARM BUSINESS REPORT 1945



NET EARNINGS AN ACRE, EAST CENTRAL ILLINOIS ACCOUNTING FARMS, 1916-1945

Net farm earnings an acre from 1916 through 1945 varied from a gain of $35.51 in 1917 to a loss of $1.96 in 1932. Following World War I, earnings remained relatively high for almost two years, then dropped precipitously in 1920 and in 1921. For further information on long-time changes in earnings of Illinois accounting farms, see the inside back cover of this report.

FARMING-TYPE AREA FIVE

West Central General Farming Area

NAME____

DEPARTMENT OF AGRICULTURAL ECONOMICS, UNIVERSITY OF ILLINOIS
COLLEGE OF AGRICULTURE, EXTENSION SERVICE IN AGRICULTURE AND HOME ECONOMICS
URBANA, ILLINOIS

AE-2389

UNIVERSITY *of* ILLINOIS
COLLEGE *of* AGRICULTURE
AGRICULTURAL EXPERIMENT STATION
URBANA, ILLINOIS

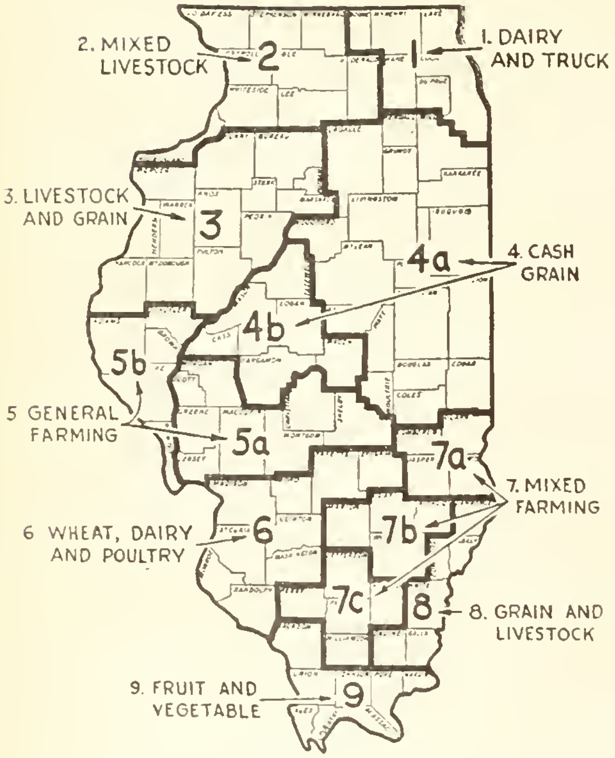
DEPARTMENT *of*
AGRICULTURAL ECONOMICS

Dear Cooperator:

This is the thirtieth annual report of farm account records kept by Illinois farmers enrolled in the farm accounting extension project conducted by this department. The earnings on farms, both during World War I and World War II, show some interesting comparisons which may well serve as a basis for anticipating a reduction in earnings during postwar years after deficits in food supplies have been made up.

The charts on the front and back cover pages of the report set forth the results from farm accounts in East Central Illinois. This is the only area of the state for which records were available for the entire 30-year period, but they are indicative of farm conditions throughout the state.

Of even greater importance to you than these results of the past 30 years, are the results from your own farm in comparison with the data from similar farms in your own section of the state, and with the data from your own farm in previous years.



THE NINE MAJOR TYPE-OF-FARMING AREAS IN ILLINOIS

Farm accounts have a number of uses among which are the following: First, the results from a group of farms serve as a standard or yardstick with which to measure your own accomplishments; second, analyzed over a period of years and studied in the light of existing economic conditions, they serve as a guide in planning for the future; and, third, in times of rapidly changing costs of production they serve as a guide for adjusting farm leases or father-son business agreements on an equitable basis.

The map on this page will identify the area for which this report is prepared.

We trust that this report will prove valuable to you.

Very truly yours,

H. C. M. CASE
Head of Department

Annual Farm Business Report

ONE HUNDRED EIGHTY-FIVE FARMS IN FARMING-TYPE AREA 5, 1945

J. B. Cunningham, Elmer N. Searle and O. B. Brown[1]

Net farm earnings on accounting farms in Farming-Type Area 5 were lower in 1945 than in 1944. The average net earnings were $3,667 in 1945; $4,217 in 1944; $5,295 in 1943; $4,885 in 1942; and $4,602 in 1941 (Table 2). The returns in 1945 were lower than the previous four years but above the average of $2,309 for 1940. The items considered in calculating net earnings include cash receipts, cash expenses, inventory change, value of farm products used in the household and unpaid labor.

Accounting farms in this area had less cash receipts in 1945 than in 1944 even though they decreased their inventory for the second continuous year. The smaller cash receipts were largely due to less income from hogs and a substantial decrease in crops produced. Cash expenses were higher in 1945 than in 1944; this increase came from larger expenditures for power and machinery. As shown in Table 2, charges for unpaid labor (family and operator) doubled from 1941 to 1945; this increase did not come from the use of more labor but because the average monthly wage increased from $55 in 1941 to $103 in 1945.

The averages presented in this report provide a good local yardstick of efficiency. From tables 1 through 7, each cooperator may determine why his return for 1945 was above or below the average of other farms in the area. When efficiency factors are affected by size, source of income, value of improved land, or amount of feed fed, the records are sorted into groups with comparable conditions and averages are run for each group (Table 1). This practice permits you to compare your farm with others that are more similar to yours than is the entire group.

The accounting farms in this report were larger than the average of all the farms in the area; the crop yields were above average; and the farm operators were more skillful than average in the organization and operation of their farms. Therefore, the figures contained in this report represent conditions which are better than average for the area.

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[1] In cooperation with the following county farm advisers (number indicates records from each county):

Adams	(25)	S. E. Myers	Montgomery	(21)	Alden E. Snyder
Brown	(4)	E. D. Powell	Morgan	(5)	E. H. Garlich
Christian	(17)	C. S. Love	Pike	(21)	W. B. Bunn
Greene	(24)	Ray H. Roll	Schuyler	(7)	Roy K. Wise
Jersey	(23)	C. T. Kibler	Scott	(5)	G. H. Reid
Macoupin	(26)	O. O. Mowery	Shelby	(21)	W. S. Batson

U. OF ILL.

TABLE 1.--FACTORS USED TO ANALYZE THE FARM BUSINESS
Accounting Farms in Farming-Type Area 5, 1945

Item	Your farm	Standards for your farm	Average of 185 farms
(Those capitalized used in chart on opposite page)			
RATE EARNED ON INVESTMENT........................	______%	11.3 %	11.3 %
Labor and management earnings....................	$______	$______ a/	$3286
ACRES IN FARM....................................	______	266	266
Acres in crops...................................	______	161	161
GROSS EARNINGS PER ACRE..........................	$______	$______ b/	$ 36.43
GROSS EXPENSE PER ACRE...........................	______	______	22.63
Net earnings per acre............................	$______	$______	$ 13.80
Investments			
Value of improved land per acre..................	$______	$______ b/	$ 75
Total investment per acre........................	______	______	122
Land use			
Percent of land area tillable....................	______	______ b/	76.9
Percent of tillable land in:			
Corn...	______	______ b/	26.4
Oats...	______	______	9.3
Wheat..	______	______	10.7
Soybeans for grain...............................	______	______	22.9
HAY AND PASTURE (incl. cl. & gr. seed crops)	______	______	27.3
Other crops (includes idle tillable land)...	______	______	3.4
Crop yields			
CORN, BU...	______	______ b/	46.4
OATS, BU...	______	______	32.1
WHEAT, BU..	______	______	19.2
SOYBEANS, BU.....................................	______	______	19.1
Livestock factors			
FEED FED PER ACRE TO PRODUCTIVE LIVESTOCK.....	$______	$______ c/	$ 18.09
RETURNS PER $100 FEED FED........................	$______	$______	$ 161
Number of cows milked............................	______	______	11.4 e/
DAIRY RETURNS PER COW MILKED.....................	$______	$______	$ 216
Number of litters farrowed.......................	______	______	21 f/
NUMBER OF PIGS WEANED PER LITTER.................	______	______	6.6
Returns per litter farrowed......................	$______	$______	$ 212
Number of hens...................................	______	______	136 g/
EGG RETURNS PER HEN..............................	______	______	3.53
Expense factors			
Labor: COST PER CROP ACRE........................	$______	$______ d/	$ 14.54
" Total months of labor..........................	______	______ a/	21.7
POWER AND MACHINERY COST PER CROP ACRE........	$______	$______ d/	$ 10.01
Land improvement cost per acre...................	______	______ b/	1.05
BUILDINGS COST PER ACRE..........................	______	______ a/	1.16
Land tax per acre................................	______	______ b/	1.04

a/ Table 4, size of farm.
b/ Table 5, value of improved land.
c/ Table 6, source of income.
d/ Table 7, size of farm and feed fed.
e/ Farms with over $299 dairy sales.
f/ Farms buying feeder pigs excluded.
g/ Farms with more than 49 hens.

USE THIS CHART TO STUDY YOUR BUSINESS
Accounting Farms in Farming-Type Area 5, 1945

The double line across the middle of the page represents the average for farms which are similar to your farm for the indicated factor. By drawing a line across each column at the place where your farm stands in that factor, you can compare your efficiency with that of other similar accounting farms in your area.

				Factors that affect earnings										Factors that affect expenses		
					Crop yields				Livestock							
Rate earned on investment, percent	Acres in farm	Gross earnings per acre	Gross expenses per acre	Percent of tillable land in hay and pasture	Corn, bu.	Oats, bu.	Wheat, bu.	Soybeans, bu.	Feed fed per acre prod. livestock	Returns per $100 feed fed prod. l.s.	Dairy returns per cow milked	No. of pigs weaned per litter	Egg returns per hen	Labor cost per crop acre	Power and machinery cost per crop acre	Buildings cost per acre
31.3	416															
27.3	386															
23.3	356															
19.3	326															
15.3	296															
11.3	266															
7.3	236															
3.3	206															
-.7	176															
-4.7	146															
-8.7	116															
-12.7	86															
* 4%	30	$5	$3	5%	4	4	2	2	$4	$20	$10	.5	.50	$1	$1	.30

*Each space between lines represents the value indicated at bottom of each column.

(Higher values are recorded above the center of the page and lower values below, except for expenses, which are recorded in the opposite direction.)

TABLE 2.--INVESTMENTS, INVENTORY CHANGES, CASH EXPENSES, CASH RECEIPTS, AND EARNINGS
Accounting Farms in Farming-Type Area 5, 1945

Item	Capital investments		Change in inventory	
	Your farm	Average of 185 farms	Your farm	Average of 185 farms
Land	$	$ 17567	$ --	$ --
Land improvements		896		111
Farm buildings		3446		-59
Horses		220		-42
Prod. l.s.: Cattle		2479		-92
Hogs		1291		153
Sheep		79		-7
Poultry		138		3
Total productive livestock	( )	(3987)	( )	(57)
Feed, grain, and seeds		3658		-298
Machinery and equipment		2384		120
Automobile (farm share)		227		-41
Totals	$	$ 32385	$	$ -152

Item	Cash expenses		Cash receipts	
	Your farm	Average of 185 farms	Your farm	Average of 185 farms
Land improvements	$	$ 392	$	$ 2
Farm buildings		261		11
Horses		17		25
Prod. l.s.: Cattle		917		2640
Dairy sales	--	--		1374
Hogs		420		4119
Sheep		37		118
Poultry		50		166
Egg sales	--	--		358
Total productive livestock	( )	(1424)	( )	(8775)
Feed, grain, and seeds		2488		3409
Machinery and equipment		1713		367
Automobile (farm share)		173		15
Livestock expense		101	--	--
A.A.A. receipts	--	--		109
Labor		653		57
Taxes		343	--	--
Miscellaneous		49		3
Totals	$	$ 7614	$	$ 12773

Item	Earnings					
	Your farm	Annual averages				
		1945	1944	1943	1942	1941
Cash balance	$	$ 5159	$ 5707	$ 5477	$ 4412	$ 2928
Inventory change		-152	-273	730	1224	2241
Farm products used in household		384	391	373	342	283
RECEIPTS LESS EXPENSES	$	$ 5391	$ 5825	$ 6580	$ 5978	$ 5452
Family labor		486	478	380	310	248
RETURN FOR CAPITAL, LABOR & MGT	$	$ 4905	$ 5347	$ 6200	$ 5668	$ 5204
Operator's labor		1238	1130	905	783	602
NET EARNINGS (Return for cap.& Mgt.)	$	$ 3667	$ 4217	$ 5295	$ 4885	$ 4602
RATE EARNED ON INVESTMENT	%	11.3%	12.5%	16.0%	16.1%	16.4%
Interest on investment at 5 percent	$	$ 1619	$ 1691	$ 1650	$ 1518	$ 1402
LABOR AND MANAGEMENT EARNINGS		3286	3656	4550	4150	3802

Inventory changes. The year 1945 was the second consecutive year of decreasing inventories, however, the decrease in 1945 was less than in 1944. The feed, grain, and seed account was $298 less at the end of 1945 than at the beginning; most of this decrease was due to a smaller amount of corn (Table 3).

TABLE 3. INVENTORIES OF GRAIN ON HAND
Accounting Farms in Farming-Type Area 5, 1945

Grain	Beginning of year (bushels)	End of year (bushels)	Change (bushels)
Corn	2 134	1 894	-240
Oats	314	431	+117
Wheat	43	38	-5
Soybeans	145	151	+6

Size of farm. As the average size of farm increased from 108 acres to 602 acres, the cost per crop acre for labor decreased from $25.19 to $12.17, and for power and machinery it decreased from $14.73 to $8.88. Likewise, the trend in building cost per acre was downward as the size of farms increased except for the farms averaging 602 acres in size (Table 4).

In comparing labor and management earnings for the various size groups, one should consider that, in general, such earnings increase as the size of farms increase when the average rate earned on investment is 5 percent or more, but that this earning situation is reversed when the average rate earned is less than 5 percent.

TABLE 4.--FARM EARNINGS AND OTHER FACTORS RELATED TO SIZE OF FARM
Accounting Farms in Farming-Type Area 5, 1945

Item	Total acres in farm 74 to 120	121 to 200	201 to 280	281 to 360	361 to 440	441 to 935
Number of farms	12	57	55	26	21	14
Acres in farm	108	166	240	322	400	602
Acres in crops	74	111	152	206	211	312
Rate earned on investment	13.7%	9.5%	12.8%	12.6%	9.6%	10.7%
Labor and mgt. earnings	$2817	$2173	$3486	$4550	$3157	$5275
Net earnings per acre	22.38	12.02	15.37	16.88	10.01	12.74
Labor cost per crop acre	$ 25.19	$ 15.83	$ 15.30	$ 12.73	$ 13.60	$ 12.17
Total months of labor	16.9	16.4	21.8	23.9	27.1	34.0
Mach. cost per crop acre	$ 14.73	$ 10.46	$ 10.25	$ 9.48	$ 9.74	$ 8.88
Buildings cost per acre	1.92	1.34	1.21	.99	.89	1.21
Feed fed per acre	26.97	19.65	18.60	18.67	14.07	17.62

Land Use. As the average per-acre value of improved land increased from $36 to $136, the tillable land increased from 59.1 percent to 95.6 percent; the tillable land in corn and soybeans increased from 39.6 percent to 63.3 percent; and the net earnings per acre increased from $7.16 to $26.71 (Table 5). On the other hand, total hay and pasture acreages decreased from 32.9 percent to 19.4 percent.

TABLE 5.--USE OF TILLABLE LAND AND OTHER FACTORS RELATED TO VALUE OF IMPROVED LAND
Accounting Farms in Farming-Type Area 5, 1945

Item	Value of improved land					
	$24 to $42	$43 to $62	$63 to $82	$83 to $102	$103 to $122	$123 to $150
Number of farms	22	51	55	39	9	9
Value of improved land	$ 36	$ 54	$ 73	$ 96	$114	$136
Acres in farm	263	260	278	270	255	222
Rate earned on investment	10.4%	10.5%	11.1%	11.6%	12.1%	13.8%
Percent of land area tillable	59.1	73.5	76.1	86.1	87.7	95.6
Percent of tillable land in:						
Corn	21.8	22.3	26.4	30.3	29.5	35.5
Oats	12.1	11.0	7.6	9.2	6.8	9.6
Wheat	10.0	12.8	10.9	9.4	9.6	6.8
Soybeans for grain	17.8	17.0	23.5	26.7	33.9	27.8
Hay & Pas. (incl. cl.& gr. seed)	32.9	35.2	27.2	20.4	18.0	19.4
Other crops (incl.idle till.land)	5.4	1.7	4.4	4.0	2.2	.9
Crop yields:						
Corn, bu	38.4	37.8	46.2	52.0	50.6	54.9
Oats, bu	27.7	27.6	31.5	36.1	35.9	48.7
Wheat, bu	18.5	18.2	18.0	21.8	22.8	20.6
Soybeans, bu	13.5	17.0	19.5	20.3	20.4	22.2
Gross earnings per acre	$ 26.21	$ 33.24	$ 35.60	$ 43.73	$ 42.93	$ 47.82
Gross expense per acre	19.05	23.03	22.32	25.08	21.74	21.11
Net earnings per acre	$ 7.16	$ 10.21	$ 13.28	$ 18.65	$ 21.19	$ 26.71
Land improvement cost per acre	$ .74	$ 1.05	$ 1.05	$ 1.25	$ .99	$ .97
Land tax per acre	.68	.87	1.03	1.29	1.31	1.54
Total investment per acre	69	97	119	160	176	193

Crop yields. Per-acre yields of corn, oats, and soybeans tended to increase as the land value increased; to a lesser extent this relationship is true for wheat (Table 5). The corn yield for accounting farms in Area 5 averaged one bushel higher in 1945 than in 1944 but this was ten bushels below the 1942-1943 average and nineteen bushels under the average for 1941.

Source of income. Relative profits from various types of farming change from year to year, depending on conditions affecting production and price. Therefore, averages for one year should not be the basis for reorganizing the farm business. In 1945 conditions were most favorable for grain farms, so they had the highest rate earned on investment. The dairymen milked the largest number of cows and received the largest returns per cow, while the hog farmers had the largest number of litters farrowed and received the largest hog returns per litter (Table 6).

TABLE 6.--FARM EARNINGS AND OTHER FACTORS RELATED TO SOURCE OF INCOME
Accounting Farms in Farming-Type Area 5, 1945

Item	Source of income			
	Hogs over 40%	Grain over 40%	Dairy sales over 40%	General farms
Number of farms..................	78	31	25	51
Acres in farm....................	283	272	211	263
Rate earned on investment........	11.4%	13.3%	10.4%	10.3%
Feed fed per acre to prod. l.s....	$ 19.78	$ 8.08	$ 21.19	$ 20.37
Returns per $100 feed fed........	$155	$157	$197	$155
Number of cows milked............	7.4	6.4	20.5	10.7
Dairy returns per cow milked.....	$156	$161	$289	$169
Number of litters farrowed.......	27.7	11.8	10.3	17.8
Number of pigs weaned per litter.	6.7	6.1	6.6	6.3
Returns per litter farrowed......	$226	$183	$206	$190
Number of hens...................	122	128	167	147
Egg returns per hen..............	$ 3.60	$ 3.21	$ 3.69	$ 3.50

Labor, power and machinery costs per crop acre. Increasing amounts of livestock on farms require larger expenses for labor and for power and machinery. Farmers reduced their labor and power and machinery costs per crop acre by operating more acres (Table 7).

TABLE 7.--LABOR COST AND POWER AND MACHINERY COST PER CROP ACRE FOR DIFFERENT SIZE FARMS AND DIFFERENT AMOUNTS OF FEED FED PER ACRE TO PRODUCTIVE LIVESTOCK
Accounting Farms in Farming-Type Area 5, 1945

Acres per farm	Feed fed per acre				Feed fed per acre			
	Less than $12.00	$12.00 to $21.99	$22.00 to $31.99	$32.00 and more	Less than $12.00	$12.00 to $21.99	$22.00 to $31.99	$32.00 and more
	(labor and cost per acre)				(Power and machinery cost per crop acre)			
74 to 120	$21.80	$22.50	$23.00	$23.90	$10.00	$10.70	$12.30	$14.50
121 to 200	17.00	18.80	20.20	21.90	9.20	10.50	12.00	14.10
201 to 280	13.10	14.40	18.30	20.30	8.70	10.30	11.80	13.80
281 to 360	12.00	13.70	15.80	16.20	7.40	9.00	10.60	11.00
361 to 440	11.60	13.20	15.20	15.50	7.00	8.40	10.10	10.70
441 to 935	10.90	11.90	14.40	14.70	6.60	7.50	8.90	10.20

FARM LEASES

In recent years, farm leasing arrangements have been affected by the increased mechanization of farms, higher labor costs, higher land values, lower interest rates, governmental programs, increased number of young men ready to begin farming, and other changing conditions. Many new leases are being written, and old ones are being adjusted.

In order to keep leasing arrangements fair to both landlord and tenant, it is necessary to look at the lease as a whole as well as at its individual parts. The lease is fair only if the landlord and tenant share in the income in proportion to the value of their contributions. This principle is simple, but its application is not easy because of the difficulties in valuing capital, interest rates, unpaid labor, management and other items. In judging the fairness of a farm lease, either current values or long-time normal values must be used alike for all items.

TABLE 8.--CONTRIBUTIONS AND GROSS EARNINGS OF TENANTS AND LANDLORDS ON RENTED FARMS
Accounting Farms in Farming-Type Area 5, 1945

Item	Forty-six rented farms	
	Tenant's share	Landlord's share
Contributions		
Real estate (residence excluded): $33,648 @ 4%....	$ ---	$1,346
Operating capital: Tenant, $7,852; Lld.,$1,861 @ 5%	393	93
Expenses and net decreases..........................	3,439	942
Unpaid labor..	1,726	26
Totals..	$5,558	$2,407
Gross earnings (receipts and net increases)..........	$6,799	$3,263
Gross earnings per $100 contributed..................	$ 122	$ 135

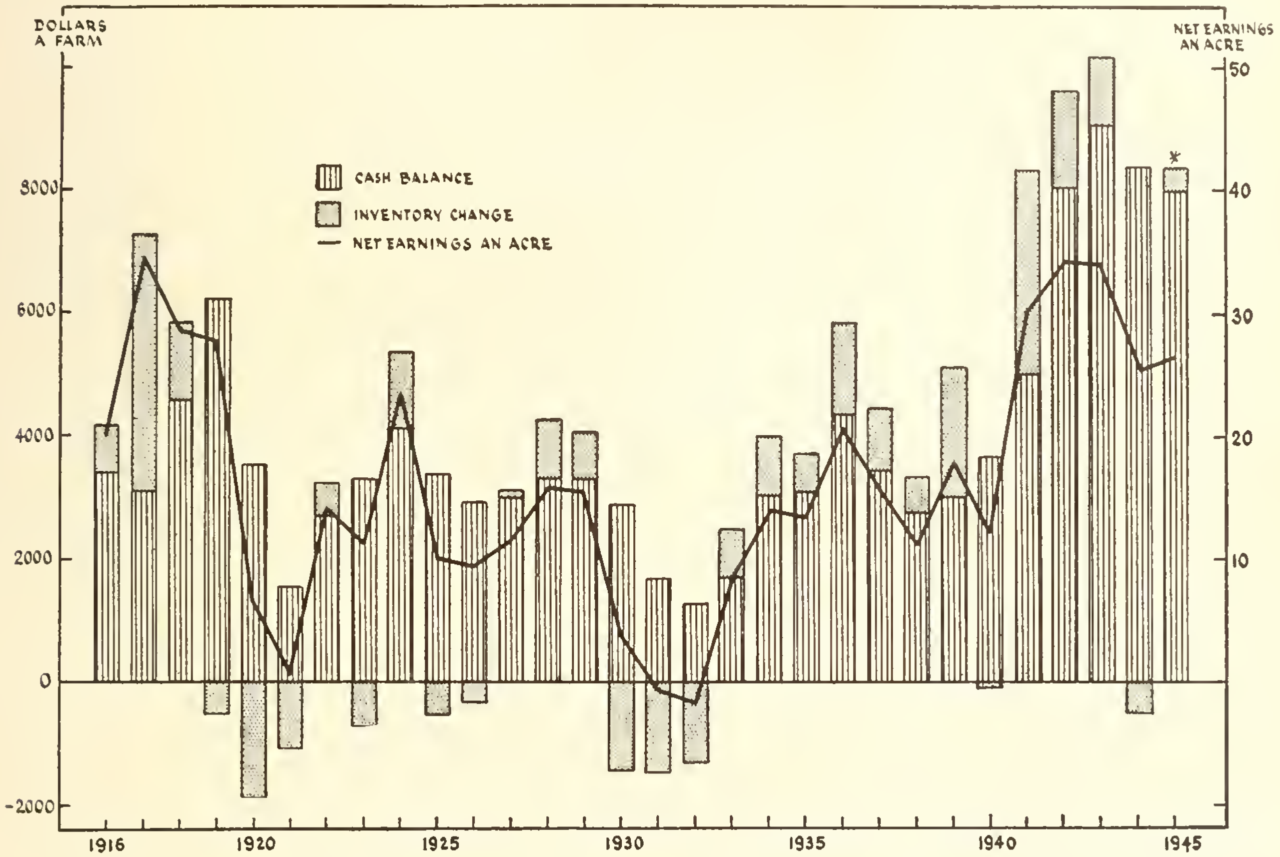
In the analysis given above, real estate values shown on the farm accounts were increased 63 percent to bring them in line with the 1945 market price. This adjustment was made on the basis of the increase in values that took place in Illinois from 1935-1939 to 1945. In the farm account books real estate values had not been increased; they averaged $82 an acre in 1945 and $87 in 1935-1939. The interest rate on real estate was also adjusted from five to four percent to put it in line with the current mortgage rate.

Although this analysis shows that the gross earnings per $100 contributed were $122 for the tenant and $135 for the landlord, the reader is cautioned against (1) assuming that all landlords profited more than their tenants, and (2) concluding that results would be the same in any other year with the same leases in force but with changed price relationships and other conditions. Furthermore, in the above analysis for 1945 the rental value of the residence is not included in the tenant's gross earnings nor in the landlord's expenses and depreciation on residence because the records did not furnish the necessary information to make this computation. Had the residence been included, the gross earnings per $100 contributed by landlord and tenant would have been more nearly equal.

The Illinois crop-share and livestock-share lease forms have recently been revised. For copies, see your farm adviser.

A GRAPHIC REVIEW OF FARM EARNINGS AND RELATED INFORMATION FOR ACCOUNTING FARMS IN EAST CENTRAL ILLINOIS, 1916-1945[1]

Net farm earnings, as shown on the front cover and on this page, are calculated by subtracting value of unpaid labor from the sum of: (1) Cash balance, (2) inventory change, and (3) value of farm products used in the household. On the front cover and in Chart 1 net farm earnings are expressed on an acre basis. In Chart 1 the cash balance and inventory change are shown on the total farm basis.



* *Estimate for 1945*

Chart 1. Net Earnings an Acre; Cash Balance and Inventory Change a Farm

High farm earnings continued longer during World War II than during World War I. Furthermore, earnings were more fully realized in cash during the last war than during World War I. This situation resulted in the retirement of many farm mortgages and in the accumulation of cash reserves which foreshadow inflationary danger — especially in the land market.

During the 30 years, 1916-1945, inventories increased 19 times and decreased 11; all but two of the decreases were during the first 17 years. Increased inventories since 1933 have been due to increased production and higher prices.

Average value of unpaid labor, which is not shown in Chart 1, increased from $360 in 1916 to $1,800 in 1945 without any material increase in the amount of labor used. Whereas, the value of farm products used in the household varied from year to year depending principally on price changes and averaged $322.

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[1] East Central Illinois is the only area for which adequate records are available for 30 years, including the two World War periods.

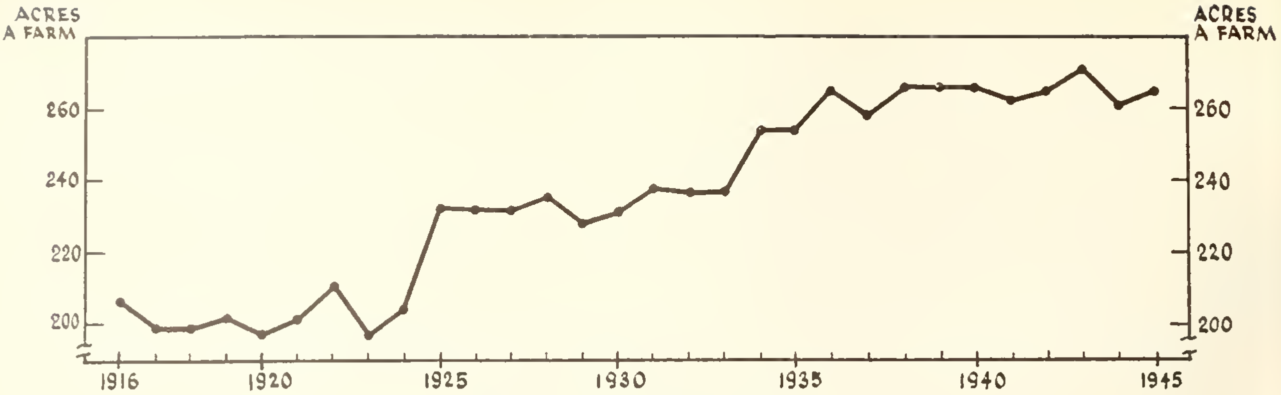


Chart 2. Variation in Size of Farms

Thirty years ago, 1916 to 1920, the accounting farms of East Central Illinois averaged 200 acres. More recently, 1941 to 1945, these farms averaged 265 acres — a 32 percent increase in size. The additional acres have added volume to the business and resulted in larger income per farm during World War II than during World War I even though prices of farm products were lower during World War II. This change in size is due primarily to the introduction of improved power, machinery, and equipment which makes it possible for the same labor to handle more land. The months of man labor used a farm has shown no material change.

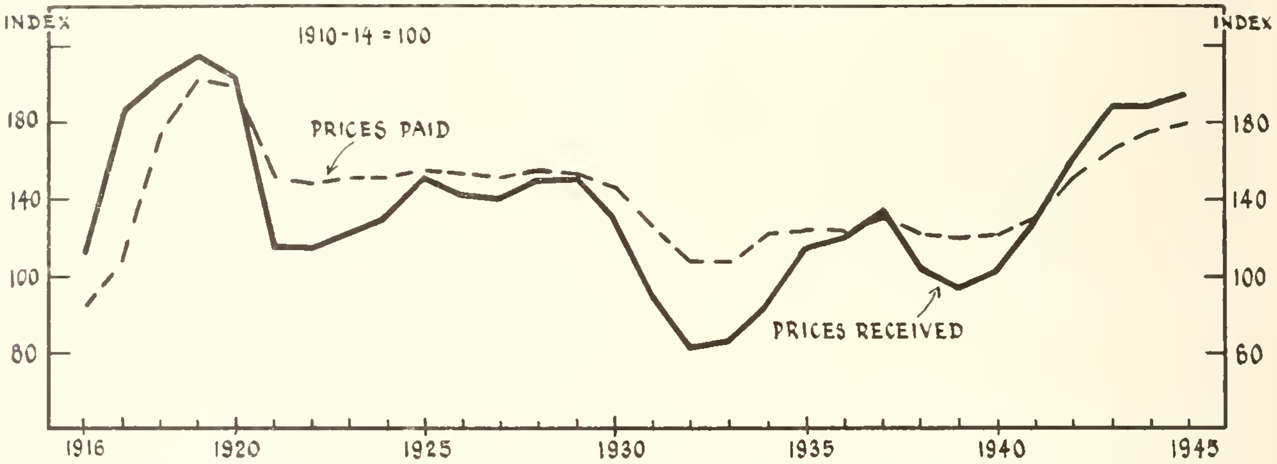


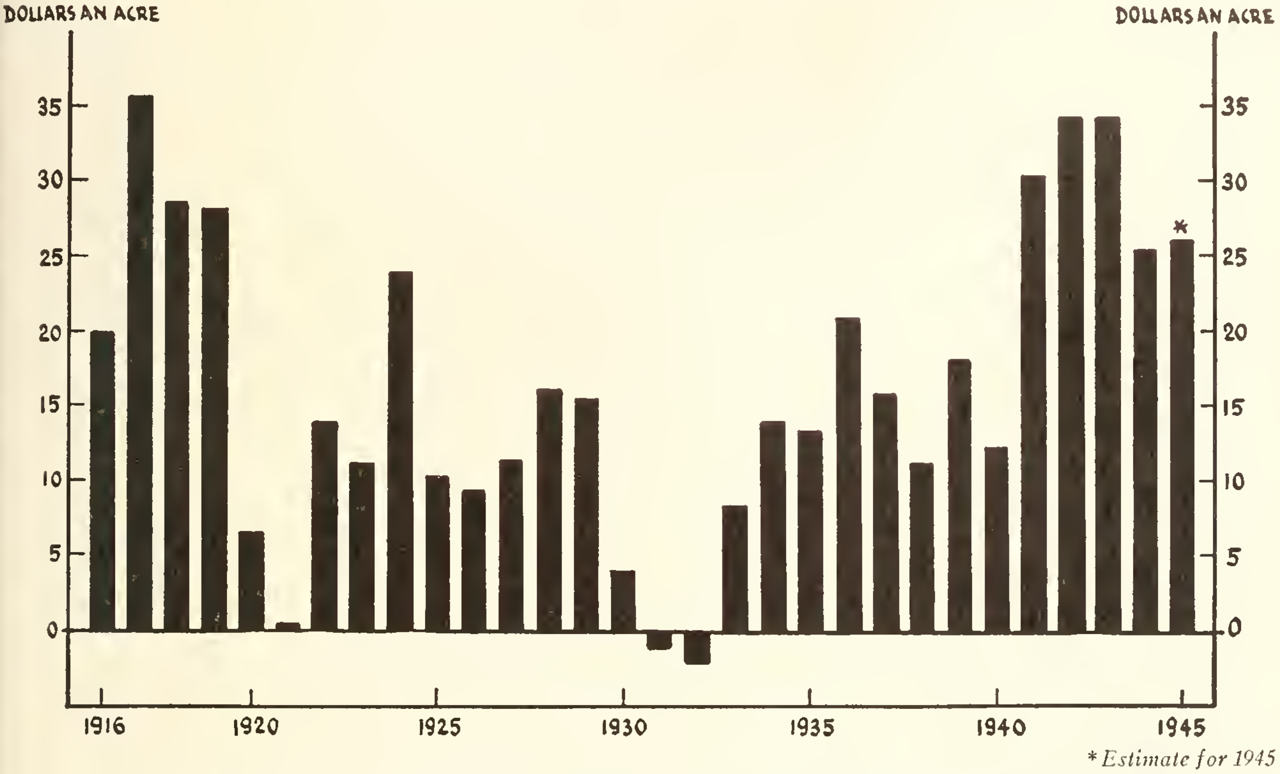
Chart 3. Prices Received by Illinois Farmers and Prices Paid by Farmers in the United States, 1916-1945

The only times during the past 30 years when prices received were appreciably above prices paid were during World Wars I and II. The 1937 year of favorable price relationships followed a drought which left farmers with small supplies of products to sell. Although prices received were lower during World War II than during World War I, net earnings an acre were at about the same level because of increased efficiency and higher production.

The price support program of 90 percent of parity or above for many farm products for two calendar years following the end of World War II will help cushion any decline that may take place in farm prices. Prices for things the farmer must buy, however, may be expected to remain relatively high for several years. Important factors affecting prices will be employment, national income and foreign demand for farm products.

Cooperative Extension Work in Agriculture and Home Economics: University of Illinois, College of Agriculture, and the United States Department of Agriculture cooperating. H. P. Rusk, *Director*. Acts approved by Congress May 8 and June 30, 1914. (32409)

YOUR FARM BUSINESS REPORT 1945



NET EARNINGS AN ACRE, EAST CENTRAL ILLINOIS ACCOUNTING FARMS, 1916-1945

Net farm earnings an acre from 1916 through 1945 varied from a gain of $35.51 in 1917 to a loss of $1.96 in 1932. Following World War I, earnings remained relatively high for almost two years, then dropped precipitously in 1920 and in 1921. For further information on long-time changes in earnings of Illinois accounting farms, see the inside back cover of this report.

FARMING-TYPE AREA SIX

St. Louis Dairy and Wheat Area

NAME____

DEPARTMENT OF AGRICULTURAL ECONOMICS, UNIVERSITY OF ILLINOIS
COLLEGE OF AGRICULTURE, EXTENSION SERVICE IN AGRICULTURE AND HOME ECONOMICS
URBANA, ILLINOIS

AE-2390

UNIVERSITY *of* ILLINOIS
COLLEGE *of* AGRICULTURE
AGRICULTURAL EXPERIMENT STATION
URBANA, ILLINOIS

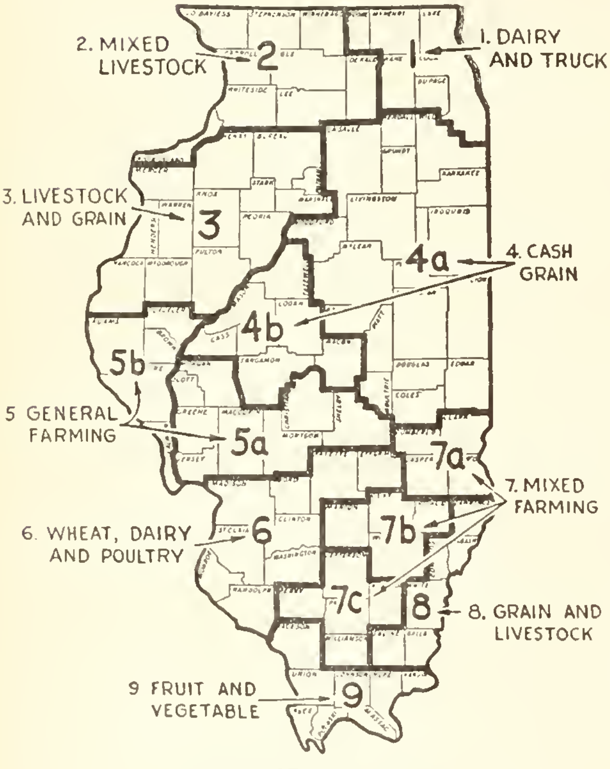
DEPARTMENT *of*
AGRICULTURAL ECONOMICS

Dear Cooperator:

This is the thirtieth annual report of farm account records kept by Illinois farmers enrolled in the farm accounting extension project conducted by this department. The earnings on farms, both during World War I and World War II, show some interesting comparisons which may well serve as a basis for anticipating a reduction in earnings during postwar years after deficits in food supplies have been made up.

The charts on the front and back cover pages of the report set forth the results from farm accounts in East Central Illinois. This is the only area of the state for which records were available for the entire 30-year period, but they are indicative of farm conditions throughout the state.

Of even greater importance to you than these results of the past 30 years, are the results from your own farm in comparison with the data from similar farms in your own section of the state, and with the data from your own farm in previous years.



THE NINE MAJOR TYPE-OF-FARMING AREAS IN ILLINOIS

Farm accounts have a number of uses among which are the following: First, the results from a group of farms serve as a standard or yardstick with which to measure your own accomplishments; second, analyzed over a period of years and studied in the light of existing economic conditions, they serve as a guide in planning for the future; and, third, in times of rapidly changing costs of production they serve as a guide for adjusting farm leases or father-son business agreements on an equitable basis.

The map on this page will identify the area for which this report is prepared.

We trust that this report will prove valuable to you.

Very truly yours,

H. C. M. CASE
Head of Department

Annual Farm Business Report

TWO HUNDRED FIFTY-THREE FARMS IN FARMING-TYPE AREA 6, 1945

J. B. Cunningham, Elmer N. Searls, O. B. Brown[1]

Net farm earnings on accounting farms in Farming-Type Area 6 were lower in 1945 than for any other year since 1938. The average net earnings per acre were: $7.70 for 1945; $10.19 for 1944; $10.82 for 1943; $10.21 for 1942; $10.27 for 1941; $8.15 for 1940; $7.96 for 1939 and $5.11 for 1938.

The items considered in calculating net earnings include cash receipts, cash expenses, inventory change, value of farm products used in the household, and unpaid family labor (Table 2). Cash receipts averaged higher than for any year since 1926 and cash expenses were second to the 20-year high of 1944 resulting in a cash balance which was highest on record. Lower earnings for 1945 were caused by a substantial decrease in inventory and an increased unpaid labor charge. Previous to 1945 inventories had been increasing every year since the depression year 1932. In 1944 the inventory increased $456, whereas in 1945 the average decrease was $202; this change alone would have made 1945 net earnings per acre $2.91 lower than the average for 1944.

The prolonged period of cool and wet weather and inadequate sunshine in May and June resulted in 75 percent more idle land in 1945 than in 1944. During this period much hay was damaged and some was ruined. The average corn yield was lower for 1945 than for any other year since 1936. Yields of oats, wheat, and soybeans were lower in 1945 than in 1944. An earlier than normal killing frost resulted in much poor-quality corn. The acreage of corn and soybeans still unharvested at the close of the year was larger than normal.

The averages presented in this report provide a good local yardstick of efficiency. From Tables 1 through 7, each cooperator may determine why his return for 1945 was above or below the average of other farms in the area. Whenever the efficiency factor is affected by size, source of income, value of improved land, and amount of feed fed, the records are sorted into groups and averages are run for each group (Table 1). This practice will permit you to compare your farm with others that are more similar to yours than is the entire group.

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[1] In cooperation with county farm advisers as follows (numbers indicate records used in report):

Bond	(18)	H. H. Kuhnen
Clinton	(21)	C. E. Twigg (F. M. Smith since January 15, 1946)
Effingham	(25)	C. S. Cutright
Fayette	(11)	J. B. Turner
Jasper	(*)	R. E. Apple

Madison	(55)	T. W. May
Monroe	(16)	E. S. Amrine
Randolph	(50)	C. F. Mees
St. Clair	(31)	B. W. Tillman
Washington	(26)	A. B. Rowand (O. W. Hertz since March 1, 1946)

* Six Jasper County records are included in this report because they are more typical of this farming-type area than of Area 7, in which they are located.

TABLE 1.--FACTORS USED TO ANALYZE THE FARM BUSINESS
Accounting Farms in Farming-Type Area 6, 1945

Item	Your farm	Standards for your farm	Average of 253 farms
(Those capitalized used in chart on opposite page)			
RATE EARNED ON INVESTMENT..........................	____%	8.2 %	8.2 %
Labor and management earnings..................	$____	$____c/	$1858
ACRES IN FARM......................................	____	226	226
Acres in crops.....................................	____	139	139
GROSS EARNINGS PER ACRE............................	$____	$____a/	$ 29.78
GROSS EXPENSE PER ACRE.............................	____	____	22.08
Net earnings per acre..............................	$____	$____	$ 7.70
Investments			
Value of improved land per acre..............	$____	$____a/	$ 52
Total investment per acre....................	____	____	94
Land use			
Percent of land area tillable................	____	____a/	82.2 %
Percent of tillable land in:			
Corn.....................................	____	____a/	16.8
Oats.....................................	____	____	8.1
Wheat....................................	____	____	23.3
Soybeans for grain.......................	____	____	11.1
HAY AND PASTURE (incl. cl. & gr. seed crops)	____	____	31.7
Other crops (includes idle tillable land)...	____	____	9.0
Crop yields			
CORN, BU.....................................	____	____a/	35.3
OATS, BU.....................................	____	____	25.4
WHEAT, BU....................................	____	____	18.8
SOYBEANS, BU.................................	____	____	13.5
Livestock factors			
FEED FED PER ACRE TO PRODUCTIVE LIVESTOCK.....	$____	$____b/	$ 14.95
RETURNS PER $100 FEED FED....................	$____	$____	$ 168
Number of cows milked........................	____	____	12.6
DAIRY RETURNS PER COW MILKED.................	$____	$____	$ 241
Number of litters farrowed...................	____	____	8.7
NUMBER OF PIGS WEANED PER LITTER.............	____	____	6.7
Returns per litter farrowed..................	$____	$____	$ 231
Returns per hog sold, died, and consumed......	$____	$____	$ 30.45
Number of hens...............................	____	____	186
EGG RETURNS PER HEN..........................	$____	$____	$ 3.77
Expense factors			
Labor: COST PER CROP ACRE....................	$____	$____d/	$ 16.02
" Total months of labor.................	____	____c/	22.5
POWER AND MACHINERY COST PER CROP ACRE........	$____	$____d/	$ 9.70
Land improvement cost per acre................	____	____a/	1.15
BUILDINGS COST PER ACRE......................	____	____c/	1.04
Land tax per acre............................	____	____a/	.72

a/ Table 4, value of improved land.
b/ Table 5, source of income.
c/ Table 3, size of farm.
d/ Table 6, size of farm and feed fed per acre.

USE THIS CHART TO STUDY YOUR BUSINESS
Accounting Farms in Farming-Type Area 6, 1945

The double line across the middle of the page represents the average for farms which are similar to your farm for the indicated factor. By drawing a line across each column at the place where your farm stands in that factor, you can compare your efficiency with that of other similar accounting farms in your area.

				Factors that affect earnings										Factors that affect expenses		
					Crop yields				Livestock							
Rate earned on investment, percent	Acres in farm	Gross earnings per acre	Gross expenses per acre	Percent of tillable land in hay and pas.	Corn, bu.	Oats, bu.	Wheat, bu.	Soybeans, bu.	Feed fed per acre to prod. livestock	Returns per $100 feed fed prod. l.s.	Dairy returns per cow milked	No. of pigs weaned per litter	Egg returns per hen	Labor cost per crop acre	Power and machinery cost per crop acre	Buildings cost per acre
13.2	376															
12.2	346															
11.2	316															
10.2	286															
9.2	256															
8.2	226															
7.2	196															
6.2	166															
5.2	136															
4.2	106															
3.2	76															
2.2	46															
*1%	30	$3	$2	2%	3 bu.	2 bu.	1 bu.	1 bu.	$2	$20	$25	.5	.40	$1	$1	.25

*Each space between lines represents the value indicated at bottom of each column.

(Higher values are recorded above the center of the page and lower values below, except for expenses, which are recorded in the opposite direction.)

TABLE 2.--INVESTMENTS, INVENTORY CHANGES, CASH EXPENSES, CASH RECEIPTS, AND EARNINGS
Accounting Farms in Farming-Type Area 6, 1945

Item	Capital investments		Change in inventory	
	Your farm	Average of 253 farms	Your farm	Average of 253 farms
Land	$	$ 10677	--	--
Land improvements		534	$	$ 47
Farm buildings		2577		39
Horses		232		-42
Prod. l.s.: Cattle		1680		-63
Hogs		484		49
Sheep		51		-3
Poultry		204		12
Total productive livestock	( )	(2419)	( )	(-5)
Feed, grain, and seeds		2508		-292
Machinery and equipment		2164		89
Automobile (farm share)		175		-38
Totals	$	$ 21286	$	$ -202

Item	Cash expenses		Cash receipts	
	Your farm	Average of 253 farms	Your farm	Average of 253 farms
Land improvements	$	$ 309	$	$ 3
Farm buildings		277		4
Horses		13		29
Prod. l.s.: Cattle		359		1074
Dairy sales	--	--		2372
Hogs		97		1510
Sheep		19		82
Poultry		63		218
Egg sales	--	--		631
Total productive livestock	( )	(538)	( )	(5887)
Feed, grain, and seeds		1607		1973
Machinery and equipment		1333		245
Automobile (farm share)		128		13
Livestock expense		78	--	--
A.A.A. receipts	--	--		119
Labor		351		37
Taxes		209	--	--
Miscellaneous		39		1
Totals	$	$ 4882	$	$ 8311

Item	Earnings					
	Your farm	Annual averages				
		1945	1944	1943	1942	1941
Cash balance	$	$ 3429	$ 3147	$ 3134	$ 2405	$ 1830
Inventory change		-202	456	271	629	879
Farm products used in household		413	412	394	349	282
RECEIPTS LESS EXPENSES	$	$ 3640	$ 4015	$ 3799	$ 3383	$ 2991
Family labor		718	649	540	459	316
RETURN FOR CAPITAL, LABOR & MGT.	$	$ 2922	$ 3366	$ 3259	$ 2924	$ 2675
Operator's labor		1182	1062	909	715	488
NET EARNINGS (Return for cap.& Mgt.)	$	$ 1740	$ 2304	$ 2350	$ 2209	$ 2187
RATE EARNED ON INVESTMENT	%	8.2%	11.2%	11.9%	11.4%	11.9%
Interest on investment at 5 percent	$	$ 1064	$ 1032	$ 989	$ 967	$ 918
LABOR AND MANAGEMENT EARNINGS		1858	2334	2270	1957	1757

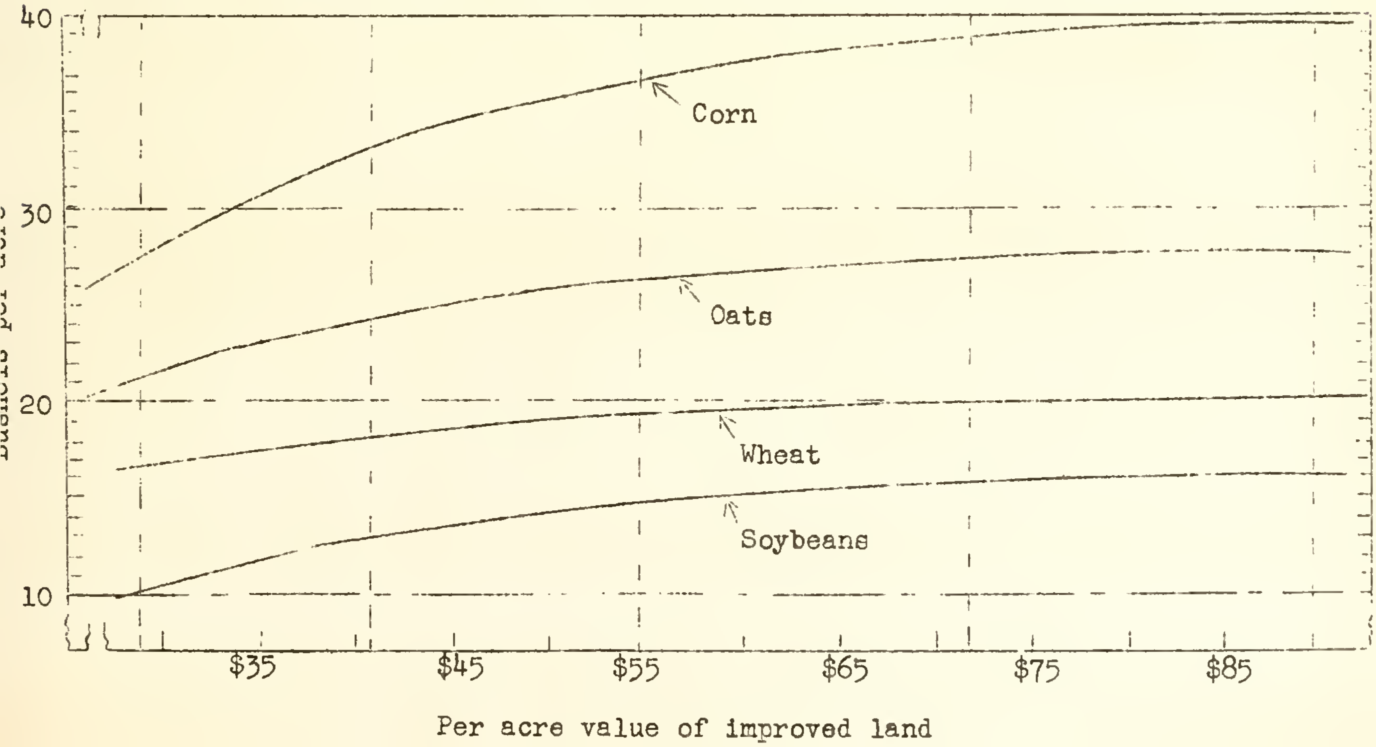
Size of farm. The 74 farms in the 201- to 280.9-acre group used 2.7 months more labor than the 104 in the 121- to 200.9-acre group and received $677 more for their labor and management; their farms also averaged 40 percent more crop acres (Table 3). The 24 farms in the 361-acre-and-over group had the lowest net earnings per acre.

TABLE 3.--SIZE OF FARM RELATED TO FARM EARNINGS AND OTHER FACTORS
Accounting Farms in Farming-Type Area 6, 1945

Item	Total acres in farm				
	79.5 to 120.9	121 to 200.9	201 to 280.9	281 to 360.9	361 to 600.9
Number of farms..................	23	104	74	28	24
Acres in farm....................	100	167	236	314	469
Acres in crops...................	67	107	147	198	255
Rate earned on investment........	5.6 %	6.9 %	9.5 %	11.3 %	6.3 %
Labor and management earnings....	$1217	$1537	$2214	$2855	$1600
Net earnings per acre............	7.17	7.35	9.11	9.51	4.73
Labor cost per crop acre.........	$ 27.52	$ 19.15	$ 15.57	$ 12.72	$ 11.16
Total months of labor............	19.0	20.5	23.2	25.1	28.9
Months of labor per 100 crop acres	28.4	19.2	15.8	12.7	11.3
Power and mach. cost per crop acre	$ 12.66	$ 10.92	$ 9.68	$ 8.19	$ 8.11
Buildings cost per acre..........	1.69	1.24	.99	.84	.82

Crop yields. Corn, oats, wheat, and soybean yields were related to value of improved land (Figure 1). As the value of improved land increased from $30 to $60 an acre, the corn yield increased about 10 bushels an acre; however, the yield on $90 land was only about two bushels more than on the $60 land.

FIGURE 1.--RELATIONSHIP BETWEEN CROP YIELDS AND VALUE OF IMPROVED LAND/ACRE



Land use. As the value of improved land per acre increased from $29 to $90, the net earnings per acre increased from $3.79 to $11.64; and the percent of land area tillable increased from 77 to 83 (Table 4). The tillable land in hay and pasture decreased from 37 to 24 percent.

TABLE 4.--USE OF TILLABLE LAND AND OTHER FACTORS RELATED TO THE VALUE OF IMPROVED LAND
Accounting Farms in Farming-Type Area 6, 1945

Item	Value of improved land				
	$ 17 to $ 34.99	$ 35 to $ 49.99	$ 50 to $ 64.99	$ 65 to $ 79.99	$ 80 to $133.99
Number of farms	45	73	71	37	27
Value of improved land	$ 29	$ 41	$ 55	$ 72	$ 90
Acres in farm	261	226	217	212	209
Rate earned on investment	5.8%	8.0%	9.3%	8.2%	8.6%
Percent of land area tillable	76.7	83.7	84.5	81.8	82.8
Percent of tillable land in:					
Corn	12.2	15.1	17.6	21.0	23.4
Oats	8.0	8.7	7.9	8.7	6.7
Wheat	18.1	22.6	24.2	28.5	26.2
Soybeans for grain	11.2	11.5	12.8	8.4	8.7
Hay & pas. (incl. cl. & gr. seed crops)	36.6	33.4	28.8	30.4	24.4
Other crops (incl. idle tillable land)	13.9	8.7	8.7	3.0	10.6
Crop yields:					
Corn, bu	28.8	30.4	37.6	38.5	39.9
Oats, bu	21.3	24.8	26.8	27.6	27.7
Wheat, bu	16.6	18.7	19.3	19.5	20.1
Soybeans, bu	10.7	12.1	15.4	14.2	17.5
Gross earnings per acre	$ 22.25	$ 26.99	$ 33.04	$ 33.56	$ 39.42
Gross expense per acre	18.46	20.63	23.36	23.92	27.78
Net earnings per acre	$ 3.79	$ 6.36	$ 9.68	$ 9.64	$ 11.64
Land improvement cost per acre	$ 1.19	$ 1.34	$ 1.20	$ .89	$ .71
Land tax per acre	.58	.64	.75	.82	.98
Total investment per acre	65	80	104	118	136

Land improvement cost per acre decreased as the value of improved land increased, reflecting the greater need for limestone, rock phosphate, and other fertilizers on the low-value land, and also indicating the owner's ability to finance such purchases. Land tax per acre varied directly with the value of improved land, averaging 58 cents an acre for $29 land and 98 cents an acre for $90 land.

Source of income. Relative profits from various types of farming change from year to year, depending on conditions affecting production and price. Therefore, averages for one year should not be the basis for reorganizing the farm business. In 1945 conditions were most favorable for grain farmers, and they had the highest rate earned on investment (Table 5). The hog farmers fed the most feed per acre but had a $36 smaller return per $100 feed fed than did the 110 dairy farms.

TABLE 5.--SOURCE OF INCOME RELATED TO FARM EARNINGS AND OTHER FACTORS
Accounting Farms in Farming-Type Area 6, 1945

	Source of income				
				General farms	
Item	Grain 40%+	Dairy sales 40%+	Hogs 40%+	L.S. 60%-	L.S. 60%+
Number of farms	19	110	35	20	69
Acres in farm	282.9	209.7	263.8	245.6	211.3
Rate earned on investment	14.5 %	8.7 %	7.3 %	6.4 %	6.4 %
Feed fed per acre to prod. l.s.	$ 7.03	$ 16.74	$ 20.19	$ 8.28	$ 13.95
Returns per $100 feed fed	165	182	146	162	163
Number of cows milked	5.5	15.2	9.1	8.9	10.7
Dairy returns per cow milked	$165	$273	$203	$169	$174
Number of litters farrowed	5.3	5.6	19.0	5.3	7.4
Number of pigs weaned per litter	7.5	6.5	6.8	6.7	6.9
Returns per litter farrowed	$288	$210	$250	$205	$219
Returns per hog sold, died & cons.	31.33	28.53	33.12	23.04	30.88
Number of hens	158	178	206	149	207
Egg returns per hen	$ 3.62	$ 3.66	$ 4.29	$ 3.25	$ 3.85

Labor, power and machinery costs per crop acre. Increasing amounts of livestock on farms require larger expenses for labor and for power and machinery. Farmers reduced their labor and power and machinery costs per crop acre by operating more acres (Table 6).

TABLE 6.--LABOR COST AND POWER AND MACHINERY COST PER CROP ACRE FOR DIFFERENT SIZE FARMS AND DIFFERENT AMOUNTS OF FEED FED PER ACRE TO PRODUCTIVE LIVESTOCK
Accounting Farms in Farming-Type Area 6, 1945

	Feed fed per acre				Feed fed per acre			
Acres per farm	Less than $9.00	$ 9.00 to $14.99	$15.00 to $20.99	$21.00 or more	Less than $9.00	$ 9.00 to $14.99	$15.00 to $20.99	$21.00 or more
	(labor cost per crop acre)				(Power and machinery cost per crop acre)			
79.5 to 120.9	$18.80	$21.00	$23.70	$29.20	$10.60	$11.00	$12.10	$14.30
121 to 200.9	14.70	17.00	20.10	23.70	8.30	9.60	11.10	13.30
201 to 280.9	13.00	15.80	15.90	17.00	7.70	8.90	10.20	12.60
281 to 360.9	11.90	13.00	13.50	15.50	6.90	8.10	8.80	11.20
361 to 600.9	10.10	11.40	11.60	12.60	6.50	7.90	8.30	9.40

FARM LEASES

In recent years, farm leasing arrangements have been affected by the increased mechanization of farms, higher labor costs, higher land values, lower interest rates, governmental programs, increased number of young men ready to begin farming, and other changing conditions. Many new leases are being written, and old ones are being adjusted.

In order to keep leasing arrangements fair to both landlord and tenant, it is necessary to look at the lease as a whole as well as at its individual parts. The lease is fair only if the landlord and tenant share in the income in proportion to the value of their contributions. This principle is simple, but its application is not easy because of the difficulties in valuing capital, interest rates, unpaid labor, management and other items. Either current values or long-time normal values must be alike for all items.

TABLE 7.--CONTRIBUTIONS AND GROSS EARNINGS OF TENANTS AND LANDLORDS ON RENTED FARMS[1]
Accounting Farms in Farming-Type Area 6, 1945

Item	Sixty-one rented farms	
	Tenant's share	Landlord's share
Contributions		
Real estate: $20,175 @ 4%......................	$ ---	$ 807
Operating capital: Tenant, $6766; Lld., $281 @ 5%	338	14
Expenses and net decreases......................	2,654	410
Unpaid labor....................................	1,825	---
Totals....................................	$4,817	$1,231
Gross earnings (receipts and net increases)........	$5,451	$1,271
Gross earnings per $100 contributed...............	$ 113	$ 103

[1] This table is also used in reports for Areas 7, 8, and 9 to illustrate the principle involved in making fair leases.

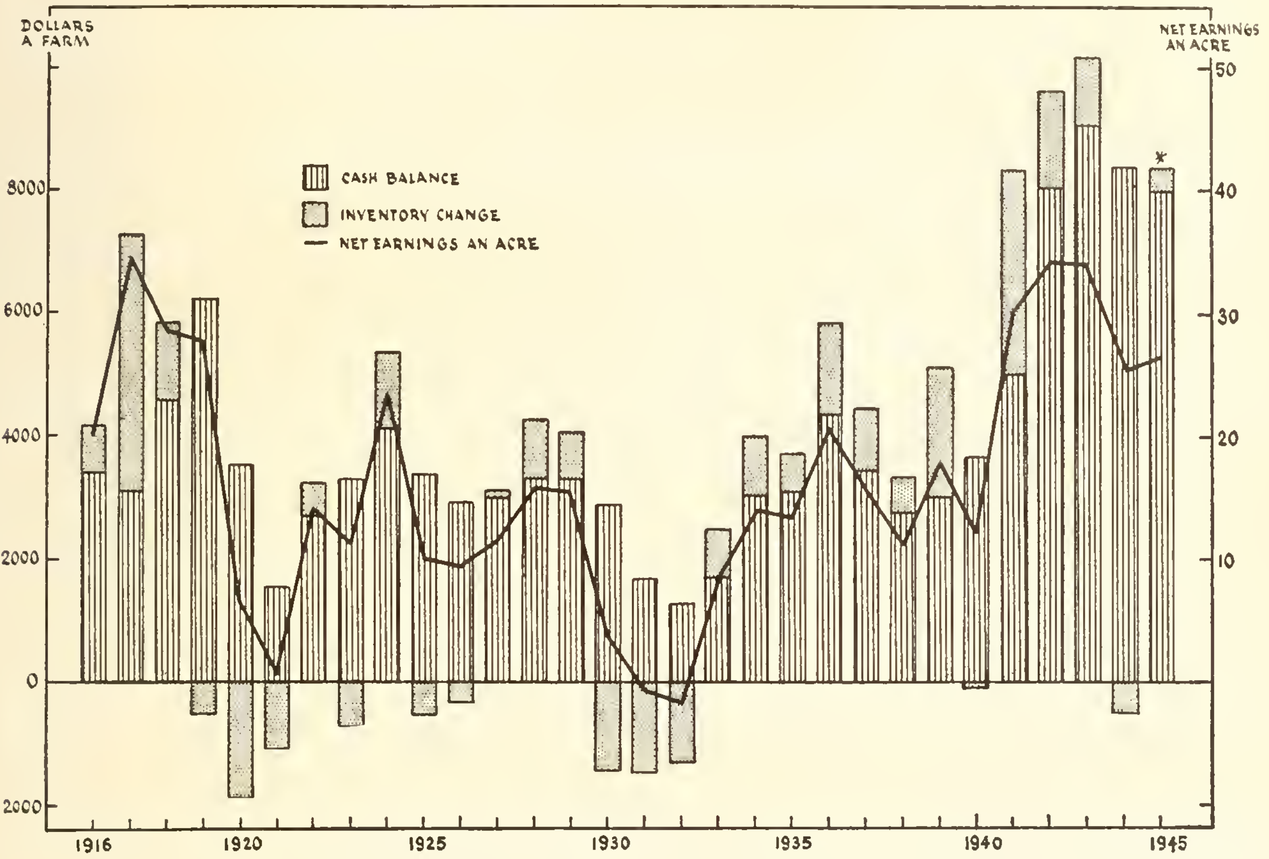
In the analysis given above, real estate values shown on the farm accounts were increased 63 percent to bring them in line with the 1945 market price. This adjustment was made on the basis of the increase in values that took place in Illinois from 1935-1939 to 1945. In the farm account books real estate values had not been increased; they remained at $61 an acre in 1945, the same as in 1935-1939. The interest rate on real estate was also adjusted from five to four percent to put it in line with the current mortgage rate.

Although this analysis shows that the gross earnings per $100 contributed annually to the operation of the farm were $113 for the tenant and $103 for the landlord, the reader is cautioned against (1) assuming that all tenants profited more than their landlords, and (2) concluding that results would be the same in any other year with the same leases in force but with changed price relationships and other conditions.

The Illinois crop-share and livestock-share lease forms have recently been revised. For copies, see your farm adviser.

A GRAPHIC REVIEW OF FARM EARNINGS AND RELATED INFORMATION FOR ACCOUNTING FARMS IN EAST CENTRAL ILLINOIS, 1916-1945[1]

Net farm earnings, as shown on the front cover and on this page, are calculated by subtracting value of unpaid labor from the sum of: (1) Cash balance, (2) inventory change, and (3) value of farm products used in the household. On the front cover and in Chart 1 net farm earnings are expressed on an acre basis. In Chart 1 the cash balance and inventory change are shown on the total farm basis.



* *Estimate for 1945*

Chart 1. Net Earnings an Acre; Cash Balance and Inventory Change a Farm

High farm earnings continued longer during World War II than during World War I. Furthermore, earnings were more fully realized in cash during the last war than during World War I. This situation resulted in the retirement of many farm mortgages and in the accumulation of cash reserves which foreshadow inflationary danger — especially in the land market.

During the 30 years, 1916-1945, inventories increased 19 times and decreased 11; all but two of the decreases were during the first 17 years. Increased inventories since 1933 have been due to increased production and higher prices.

Average value of unpaid labor, which is not shown in Chart 1, increased from $360 in 1916 to $1,800 in 1945 without any material increase in the amount of labor used. Whereas, the value of farm products used in the household varied from year to year depending principally on price changes and averaged $322.

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[1] East Central Illinois is the only area for which adequate records are available for 30 years, including the two World War periods.

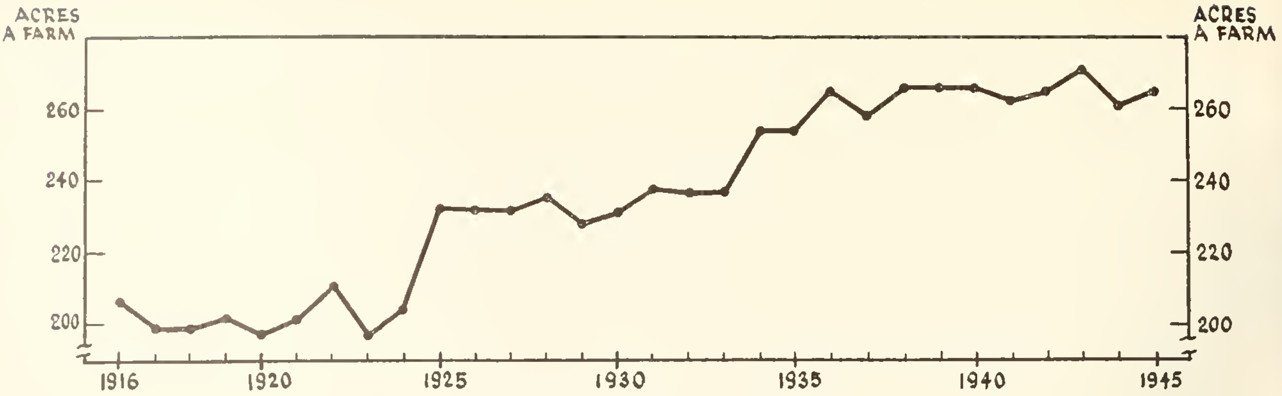


Chart 2. Variation in Size of Farms

Thirty years ago, 1916 to 1920, the accounting farms of East Central Illinois averaged 200 acres. More recently, 1941 to 1945, these farms averaged 265 acres — a 32 percent increase in size. The additional acres have added volume to the business and resulted in larger income per farm during World War II than during World War I even though prices of farm products were lower during World War II. This change in size is due primarily to the introduction of improved power, machinery, and equipment which makes it possible for the same labor to handle more land. The months of man labor used a farm has shown no material change.

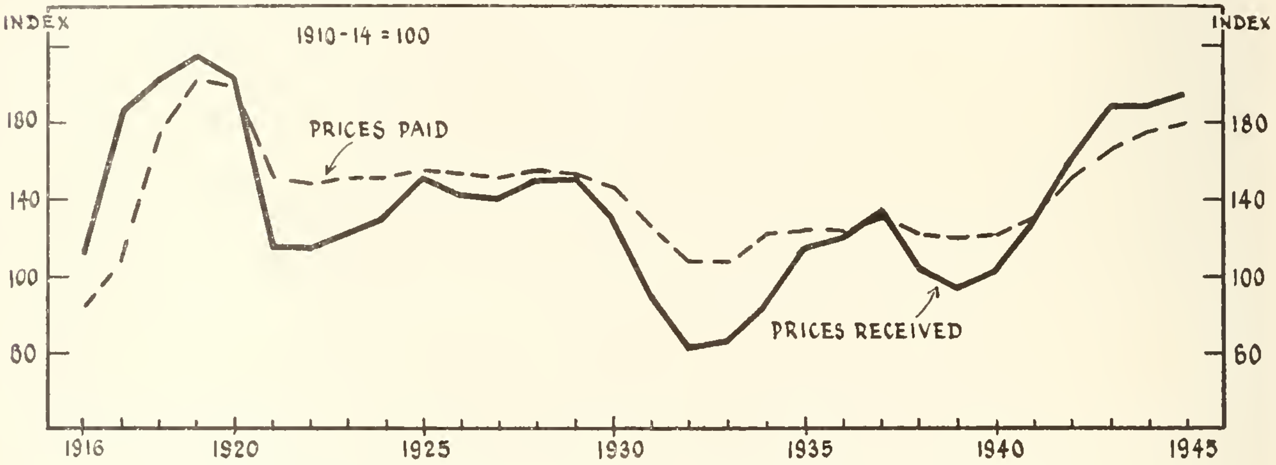


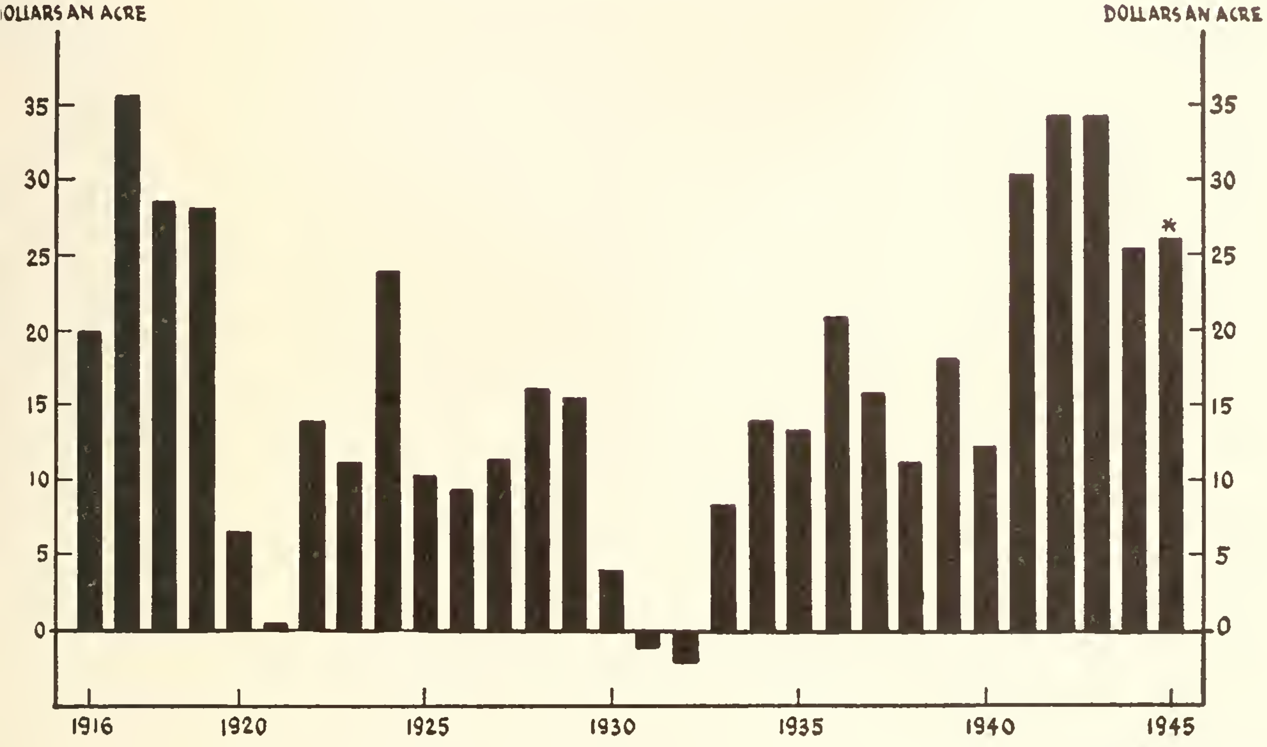
Chart 3. Prices Received by Illinois Farmers and Prices Paid by Farmers in the United States, 1916-1945

The only times during the past 30 years when prices received were appreciably above prices paid were during World Wars I and II. The 1937 year of favorable price relationships followed a drought which left farmers with small supplies of products to sell. Although prices received were lower during World War II than during World War I, net earnings an acre were at about the same level because of increased efficiency and higher production.

The price support program of 90 percent of parity or above for many farm products for two calendar years following the end of World War II will help cushion any decline that may take place in farm prices. Prices for things the farmer must buy, however, may be expected to remain relatively high for several years. Important factors affecting prices will be employment, national income and foreign demand for farm products.

Cooperative Extension Work in Agriculture and Home Economics: University of Illinois, College of Agriculture, and the United States Department of Agriculture cooperating. H. P. Rusk, *Director*. Acts approved by Congress May 8 and June 30, 1914.
(32409)

YOUR FARM BUSINESS REPORT 1945



**Estimate for 1945*

NET EARNINGS AN ACRE, EAST CENTRAL ILLINOIS ACCOUNTING FARMS, 1916-1945

Net farm earnings an acre from 1916 through 1945 varied from a gain of $35.51 in 1917 to a loss of $1.96 in 1932. Following World War I, earnings remained relatively high for almost two years, then dropped precipitously in 1920 and in 1921. For further information on long-time changes in earnings of Illinois accounting farms, see the inside back cover of this report.

FARMING-TYPE AREA SEVEN

South Central Mixed Farming Area

NAME____

DEPARTMENT OF AGRICULTURAL ECONOMICS, UNIVERSITY OF ILLINOIS
COLLEGE OF AGRICULTURE, EXTENSION SERVICE IN AGRICULTURE AND HOME ECONOMICS
URBANA, ILLINOIS

AE-2391

UNIVERSITY of ILLINOIS
COLLEGE of AGRICULTURE
AGRICULTURAL EXPERIMENT STATION
URBANA, ILLINOIS

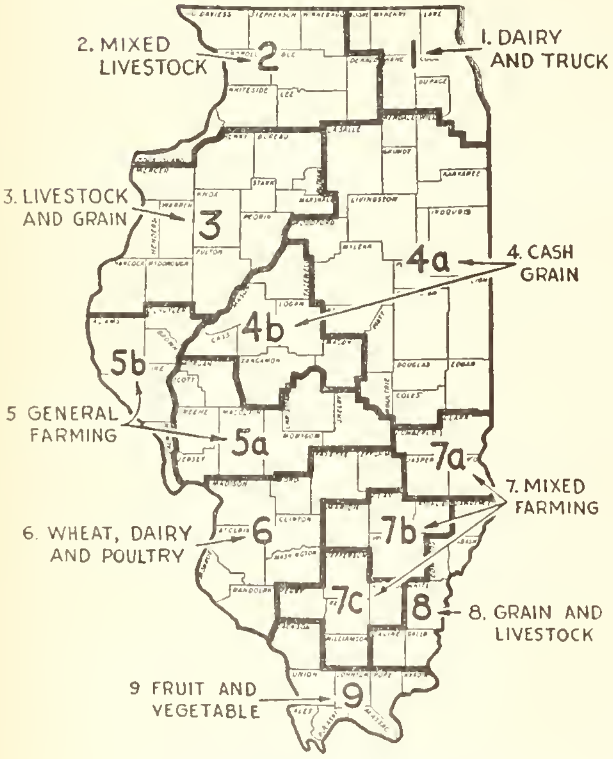
Department of
Agricultural Economics

Dear Cooperator:

This is the thirtieth annual report of farm account records kept by Illinois farmers enrolled in the farm accounting extension project conducted by this department. The earnings on farms, both during World War I and World War II, show some interesting comparisons which may well serve as a basis for anticipating a reduction in earnings during postwar years after deficits in food supplies have been made up.

The charts on the front and back cover pages of the report set forth the results from farm accounts in East Central Illinois. This is the only area of the state for which records were available for the entire 30-year period, but they are indicative of farm conditions throughout the state.

Of even greater importance to you than these results of the past 30 years, are the results from your own farm in comparison with the data from similar farms in your own section of the state, and with the data from your own farm in previous years.



THE NINE MAJOR TYPE-OF-FARMING AREAS IN ILLINOIS

Farm accounts have a number of uses among which are the following: First, the results from a group of farms serve as a standard or yardstick with which to measure your own accomplishments; second, analyzed over a period of years and studied in the light of existing economic conditions, they serve as a guide in planning for the future; and, third, in times of rapidly changing costs of production they serve as a guide for adjusting farm leases or father-son business agreements on an equitable basis.

The map on this page will identify the area for which this report is prepared.

We trust that this report will prove valuable to you.

Very truly yours,

H. C. M. CASE
Head of Department

Annual Farm Business Report

ONE HUNDRED TEN FARMS IN FARMING-TYPE AREA 7, 1945

J. B. Cunningham, J. E. Wills, E. N. Searls and O. B. Brown[1]

Net farm earnings on accounting farms in Farming-Type Area 7 were lower in 1945 than for any year since 1933. Net earnings averaged about $1,500 per farm during 1941-1943, but dropped to $814 in 1944 and to $563 in 1945 (Table 2). The items considered in calculating net earnings include cash receipts, cash expenses, inventory change, value of farm products used in the household, and unpaid family labor.

In comparing net earnings in 1945 with those of previous years, two factors should be noted: The first is that charges for labor have been greatly increased. In 1945 the unpaid labor charge, (operator's and family labor combined)averaged $1,284 per farm, or practically twice as much as in 1941 (Table 2). This increased labor charge has been due to an increase in the monthly rate and not to an increase in number of months; it is an important cause of lower net earnings for the past two years. The second factor to be noted is that the average size of farm has increased. During the war years accounting farms in this area increased in size by about 80 acres per farm. Since the high-income year of 1942, net earnings per acre have declined more than net earnings per farm. In 1945, average net earnings of $2.09 per acre were the lowest for any year since 1932.

The averages presented in this report provide a good local yardstick of efficiency. From Tables 1 through 7 each cooperator may determine why his return for 1945 was above or below the average of other farms in the area. Whenever efficiency factors are affected by size, source of income, and value of improved land, the records are sorted into groups having comparable conditions and averages are run for each group (Table 1). This practice permits you to compare your farm with others that are more similar to yours than is the entire group.

The divisions of farming-type areas seldom follow county lines. Farm returns in Farming-Type Area 7A have been considerably above Areas 7B and 7C for several years. Therefore, in an attempt to give all cooperators comparative reports based on records which are similar to each other, 12 records from 7A were shifted to other areas (see footnote below). The remaining seven records in Area 7A were combined with Areas 7B and 7C to make this report. Comparisons with previous years are based on averages for Areas 7B and 7C.

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[1] In cooperation with F. A. Stewart, who was fieldman in Marion, Jefferson and Wayne counties, and the following county farm advisers (number indicates records from each county):*

Clark	(5)	Theo. E. Myers	Jefferson	(33)	Donald O. Lee
(C. N. Glover since April 16, 1945)			Marion	(28)	F. J. Blackburn
Clay	(7)	Edgar Booker	Perry	(7)	J. G. McCall
Crawford	(4)	Halsey L. Miles	Richland	(7)	E. J. Barnes
Franklin	(9)	G. J. Christenson	Wayne	(28)	L. B. Kimmel
Hamilton	(2)	Glen F. Sons	Williamson	(1)	E. E. Greer
Jasper	(11)	R. E. Apple			

* Three Clark County and three Crawford County records were used in the Farming-Type Area 8 report; six Jasper County records were used in the Area 6 report.

TABLE 1.--FACTORS USED TO ANALYZE THE FARM BUSINESS
Accounting Farms in Farming-Type Area 7, 1945

Item	Your farm	Standards for your farm	Average of 110 farms
(Those capitalized used in chart on opposite page)			
RATE EARNED ON INVESTMENT	______%	3.7 %	3.7 %
Labor and management earnings	$______	$______ a/	$778
ACRES IN FARM	______	269.1	269.1
Acres in crops	______	130.3	130.3
GROSS EARNINGS PER ACRE	$______	$______ b/	$ 15.66
GROSS EXPENSE PER ACRE	______	______	13.57
Net earnings per acre	$______	$______	$ 2.09
Investments			
Value of improved land per acre	$______	$______ b/	$ 31
Total investment per acre	______	______	57
Land use			
Percent of land area tillable	______	______ b/	84.4
Percent of tillable land in:			
Corn	______	______	10.2
Oats	______	______	4.1
Wheat	______	______	14.3
Soybeans for grain	______	______	7.4
HAY AND PASTURE (incl. cl. & gr. seed crops)	______	______	51.3
Other crops (includes idle tillable land)	______	______	12.7
Crop yields			
CORN, BU	______	______ b/	29.7
OATS, BU	______	______	17.0
WHEAT, BU	______	______	15.8
SOYBEANS, BU	______	______	9.9
Livestock factors			
FEED FED PER ACRE TO PRODUCTIVE LIVESTOCK	$______	$______ c/	$ 8.05
RETURNS PER $100 FEED FED	$______	$______	$158
Number of cows milked	______	______	7.9 d/
DAIRY RETURNS PER COW MILKED	$______	$______	$178
Number of litters farrowed	______	______	5 e/
NUMBER OF PIGS WEANED PER LITTER	______	______	7.1
Returns per litter farrowed	$______	$______	$205
Number of hens	______	______	156 f/
EGG RETURNS PER HEN	$______	$______	$ 3.41
Expense factors			
Labor: COST PER CROP ACRE	$______	$______ a/	$ 11.51
" Total months of labor	______	______	16.5
POWER AND MACHINERY COST PER CROP ACRE	$______	$______	$ 8.15
Land improvement cost per acre	______	______ b/	1.29
BUILDINGS COST PER ACRE	______	______ a/	.63
Land tax per acre	______	______ b/	.52

a/ Table 4, size of farm
b/ Table 5, value of improved land
c/ Table 6, source of income
d/ Farms with over $299 dairy sales
e/ Farms buying feeder pigs excluded
f/ Farms with over 49 hens in flock

USE THIS CHART TO STUDY YOUR BUSINESS
Accounting Farms in Farming-Type Area 7, 1945

The double line across the middle of the page represents the average for farms which are similar to your farm for the indicated factor. By drawing a line across each column at the place where your farm stands in that factor, you can compare your efficiency with that of other similar accounting farms in your area.

				Factors that affect earnings										Factors that affect expenses		
					Crop yields				Livestock							
Rate earned on investment, percent	Acres in farm	Gross earnings per acre	Gross expenses per acre	Percent of tillable land in hay and pas.	Corn, bu.	Oats, bu.	Wheat, bu.	Soybeans, bu.	Feed fed per acre to prod. livestock	Returns per $100 feed fed prod. l.s.	Dairy returns per cow milked	No. of pigs weaned per litter	Egg returns per hen	Labor cost per crop acre	Power and machinery cost per crop acre	Buildings cost per acre
13.7	419															
11.7	389															
9.7	359															
7.7	329															
5.7	299															
3.7	269															
1.7	239															
-.3	209															
-2.3	179															
-4.3	149															
-6.3	119															
-8.3	89															
*2%	30	$3	$3	2%	2	2	1	1	$2	$20	$20	1	.50	$2	$2	$.50

*Each space between lines represents the value indicated at bottom of each column.

(Higher values are recorded above the center of the page and lower values below, except for expenses, which are recorded in the opposite direction).

TABLE 2.--INVESTMENTS, INVENTORY CHANGES, CASH EXPENSES, CASH RECEIPTS, AND EARNINGS
Accounting Farms in Farming-Type Area 7, 1945

Item	Capital investments		Change in inventory	
	Your farm	Average of 110 farms	Your farm	Average of 110 farms
Land	$	$ 7795	--	--
Land improvements		663	$	$ 48
Farm buildings		1708		-16
Horses		172		-30
Prod. l.s.: Cattle		1486		61
Hogs		348		49
Sheep		95		-3
Poultry		155		4
Total productive livestock	( )	(2084)	( )	(111)
Feed, grain, and seeds		1405		-61
Machinery and equipment		1263		66
Automobile (farm share)		154		-30
Totals	$	$ 15244	$	$ 88

Item	Cash expenses		Cash receipts	
	Your farm	Average of 110 farms	Your farm	Average of 110 farms
Land improvements	$	$ 400	$	$ 4
Farm buildings		154		--
Horses		16		31
Prod. l.s: Cattle		306		1066
Dairy sales	--	--		640
Hogs		89		1028
Sheep		13		143
Poultry		48		153
Egg sales	--	--		437
Total productive livestock	( )	(456)	( )	(3467)
Feed, grain, and seeds		1034		1259
Machinery and equipment		982		140
Automobile (farm share)		126		8
Livestock expense		47	--	--
A.A.A. receipts	--	--		105
Labor		225		17
Taxes		173	--	--
Miscellaneous		30		1
Totals	$	$ 3643	$	$ 5032

Item	Earnings					
	Your farm	Annual averages*				
		1945	1944	1943	1942	1941
Cash balance	$	$ 1389	$ 1881	$ 1819	$ 1095	$ 1043
Inventory change		88	-188	419	948	780
Farm products used in household		372	406	401	328	288
RECEIPTS LESS EXPENSES	$	$ 1849	$ 2099	$ 2639	$ 2371	$ 2111
Family labor		309	388	340	249	203
RETURN FOR CAPITAL, LABOR & MGT	$	$ 1540	$ 1711	$ 2299	$ 2122	$ 1908
Operator's labor		977	897	764	585	445
NET EARNINGS (Return for cap.& mgt.)	$	$ 563	$ 814	$ 1535	$ 1537	$ 1463
RATE EARNED ON INVESTMENT	%	3.7%	4.8%	9.9%	11.1%	8.6%
Interest on investment at 5 percent	$	$ 762	$ 843	$ 779	$ 691	$ 608
LABOR AND MANAGEMENT EARNINGS		778	868	1520	1431	1300

* Farming-type Areas 7B and 7C and 7 records from Area 7A in 1945.

Inventory changes. In 1945 the farm inventory increased $88 in contrast to a decrease of $188 in 1944, but even the 1944 increase was much less than the increase of $948 in 1942 (Table 2). At the end of 1945, the supply of corn on farms in this area was smaller than it had been since the drought year of 1936. The average amounts of corn, oats, wheat, and soybeans on hand in Area 7 at the two inventory periods are shown in the following table:

TABLE 3.--INVENTORIES OF GRAIN ON HAND
Accounting Farms in Farming-Type Area 7, 1945

Grain	Beginning of year (bushels)	End of year (bushels)	Change (bushels)
Corn	504	446	-138
Oats	177	136	- 41
Wheat	50	55	+ 5
Soybeans	55	60	+ 5

Size of farm. The 22 farms in the 221- to 300-acre group used 2.5 months more labor than the 37 in the 141- to 220-acre group and received $467 more for their labor and management. Their farms had the higher returns on investment of any size group (Table 3). The operators of the farms in the 381- to 847-acre group had the lowest returns for their labor.

TABLE 4.--FARM EARNINGS AND OTHER FACTORS RELATED TO SIZE OF FARM
Accounting Farms in Farming-Type Area 7, 1945

	Total acres in farm				
Item	60 to 140	141 to 220	221 to 300	301 to 380	381 to 847
Number of farms..................	15	37	22	14	22
Acres in farm....................	111.0	178.8	256.2	338.2	497.9
Acres in crops...................	56.1	97.2	128.6	180.0	206.6
Rate earned on investment........	2.0 %	4.3 %	7.2 %	3.0 %	2.0 %
Labor and management earnings....	$ 641	$ 878	$1345	$ 629	$ 237
Net earnings per acre............	1.35	2.66	4.09	1.69	1.02
Labor cost per crop acre.........	$ 21.05	$ 13.38	$ 12.16	$ 9.11	$ 9.19
Total months of labor............	13.0	14.4	16.9	18.4	20.5
Months per 100 crop acres........	23.2	14.8	13.1	10.2	9.9
Power and mach. cost per crop acre	$ 12.45	$ 8.38	$ 7.96	$ 6.83	$ 8.03
Buildings cost per acre..........	1.04	.66	.58	.77	.52
Feed fed per acre to prod. l.s...	10.08	10.40	8.77	8.58	5.73

Value of improved land. Earnings in 1945 were not as closely related to value of improved land as in previous years (Table 5). The 44 farms in the $26 to $34 value of improved land groups had larger returns than either the lower or higher valued group of farms. These 44 farms had the highest average yields of corn.

TABLE 5.--USE OF TILLABLE LAND AND OTHER FACTORS RELATED TO THE VALUE OF IMPROVED LAND
Accounting Farms in Farming-Type Area 7, 1945

Item	Value of improved land		
	$17 to $25	$26 to $34	$35 to $69
Number of farms	33	44	33
Value of improved land	$ 22	$ 30	$ 42
Acres in farm	312.5	241.4	262.7
Rate earned on investment	3.4%	5.0%	2.4%
Percent of land area tillable	82.0	85.5	85.7
Percent of tillable land in:			
Corn	10.3	10.8	9.4
Oats	4.4	4.2	3.4
Wheat	11.3	12.9	19.4
Soybeans for grain	8.9	6.9	6.4
Hay & pas. (incl. cl. & gr. seed crops)	53.4	50.5	50.1
Other crops (incl. idle tillable land)	11.7	14.7	11.3
Crop yields:			
Corn, bu	26.2	31.9	30.8
Oats, bu	16.8	14.8	20.8
Wheat, bu	15.6	17.3	14.9
Soybeans, bu	11.1	10.2	7.6
Gross earnings per acre	$ 13.65	$ 18.08	$ 15.10
Gross expense per acre	12.12	15.03	13.50
Net earnings per acre	$ 1.53	$ 3.05	$ 1.60
Land improvement cost per acre	$ 1.18	$ 1.41	$ 1.28
Land tax per acre	.51	.51	.53
Total investment per acre	45	61	65

The failure of yields and earnings to show a closer relation to quality of land was apparently due to adverse weather conditions during the year. On most farms spring plantings were very late because of wet weather: 11 percent of the tillable land on the accounting farms was idle in 1945 compared to 6.4 percent in 1944. As a result of late plantings, yields of oats, corn, and soybeans were unusually low on some farms. Also, some farmers had difficulty in harvesting wheat because of wet ground. These conditions resulted in wide variations in crop yields and in amounts of idle land between individual farms, and these variations were a very important influence on the farm earnings. However, variations in yields and idle land were not closely related to quality of land as measured by land value. Another fact related to land use data in Table 5 is that the acreage of clover and grass seeds harvested in 1945 was double that of 1944, and income from sales of these seeds was important on some farms.

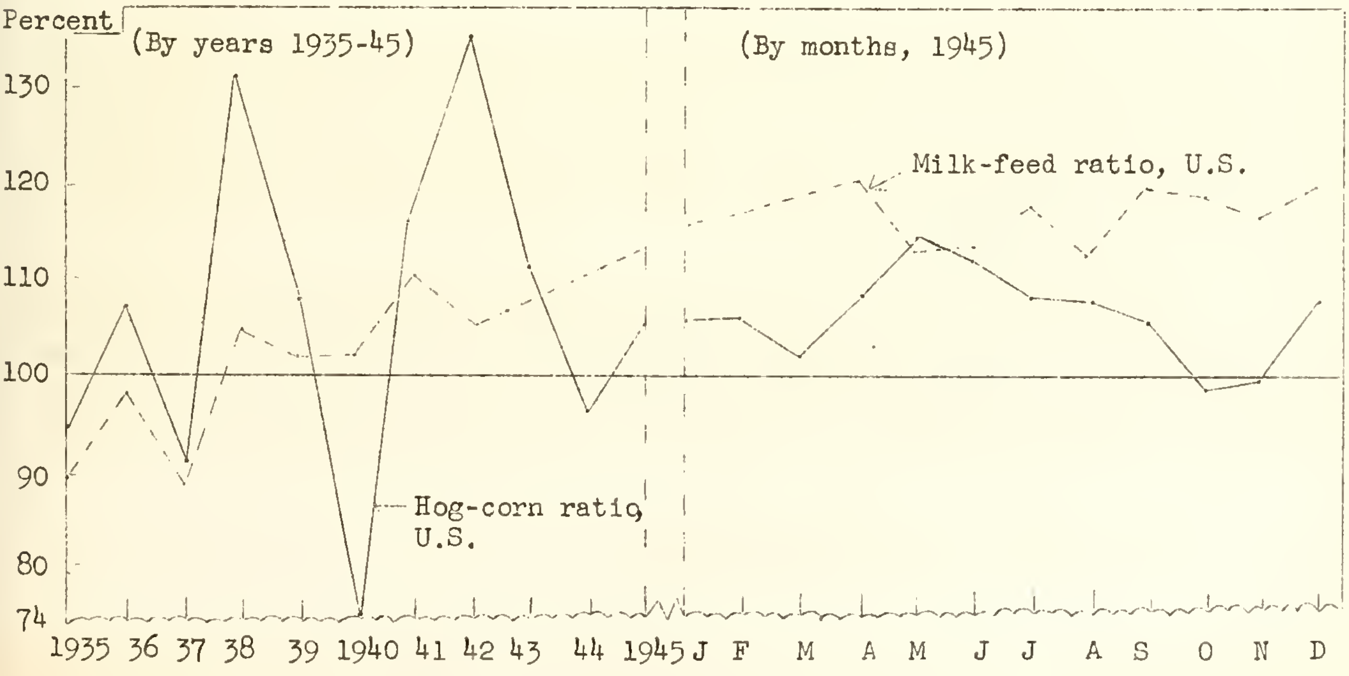
Source of income. Relative profits from various types of farming change from year to year, depending on conditions affecting production and price. Therefore, averages for one year should not be the basis for reorganizing the farm business. In 1945, conditions were most favorable for general farmers with the least livestock; they earned the highest rate on investment (Table 6).

TABLE 6.--FARM EARNINGS AND OTHER FACTORS RELATED TO SOURCE OF INCOME
Accounting Farms in Farming-Type Area 7, 1945

Item	Source of income			
			General farms	
	Hogs above 40%	Dairy sales above 40%	Livestock under 70%	Livestock above 70%
Number of farms..................	20	12	34	44
Acres in farm....................	302.6	265.0	272.4	252.5
Rate earned on investment........	.6%	3.2%	8.2%	1.7%
Feed fed per acre to prod. l.s...	$ 10.41	$ 9.30	$ 5.53	$ 8.51
Returns per $100 feed fed........	125	175	179	164
Number of cows milked............	4.4	14.3	5.6	6.6
Dairy returns per cow milked.....	$ 168	$ 217	$ 143	$ 152
Number of litters farrowed.......	9.9	3.1	4.1	4.5
Number of pigs weaned per litter.	6.9	7.5	6.8	7.4
Returns per litter farrowed......	$ 224	$ 91	$ 197	$ 209
Number of hens...................	141	111	144	186
Egg returns per hen..............	$ 3.08	$ 2.76	$ 3.22	$ 3.69

Feeding ratios. Feeding ratios in 1945 were more favorable for the dairy farmer than for the hog farmer (Figure 1).

FIGURE 1.--HOG-CORN AND MILK-FEED PRICE RATIOS, 1935-45, BY MONTHS 1945
(1925-44 = 100)



FARM LEASES

In recent years, farm leasing arrangements have been affected by the increased mechanization of farms, higher labor costs, higher land values, lower interest rates, governmental programs, increased number of young men ready to begin farming, and other changing conditions. Many new leases are being written, and old ones are being adjusted.

In order to keep leasing arrangements fair to both landlord and tenant, it is necessary to look at the lease as a whole as well as at its individual parts. The lease is fair only if the landlord and tenant share in the income in proportion to the value of their contributions. This principle is simple, but its application is not easy because of the difficulties in valuing capital, interest rates, unpaid labor, management and other items. Either current values or long-time normal values must be alike for all items.

TABLE 7.--CONTRIBUTIONS AND GROSS EARNINGS OF TENANTS AND LANDLORDS ON RENTED FARMS[1/]
Accounting Farms in Farming-Type Area 6, 1945

Item	Sixty-one rented farms	
	Tenant's share	Landlord's share
Contributions		
Real estate: $20,175 @ 4%........................	$ ---	$ 807
Operating capital: Tenant, $6766; Lld., $281 @ 5%	338	14
Expenses and net decreases......................	2,654	410
Unpaid labor.....................................	1,825	---
Totals...	$4,817	$1,231
Gross earnings (receipts and net increases)........	$5,451	$1,271
Gross earnings per $100 contributed................	$ 113	$ 103

[1/] This table is also used in reports for Areas 7, 8, and 9 to illustrate the principle involved in making fair leases.

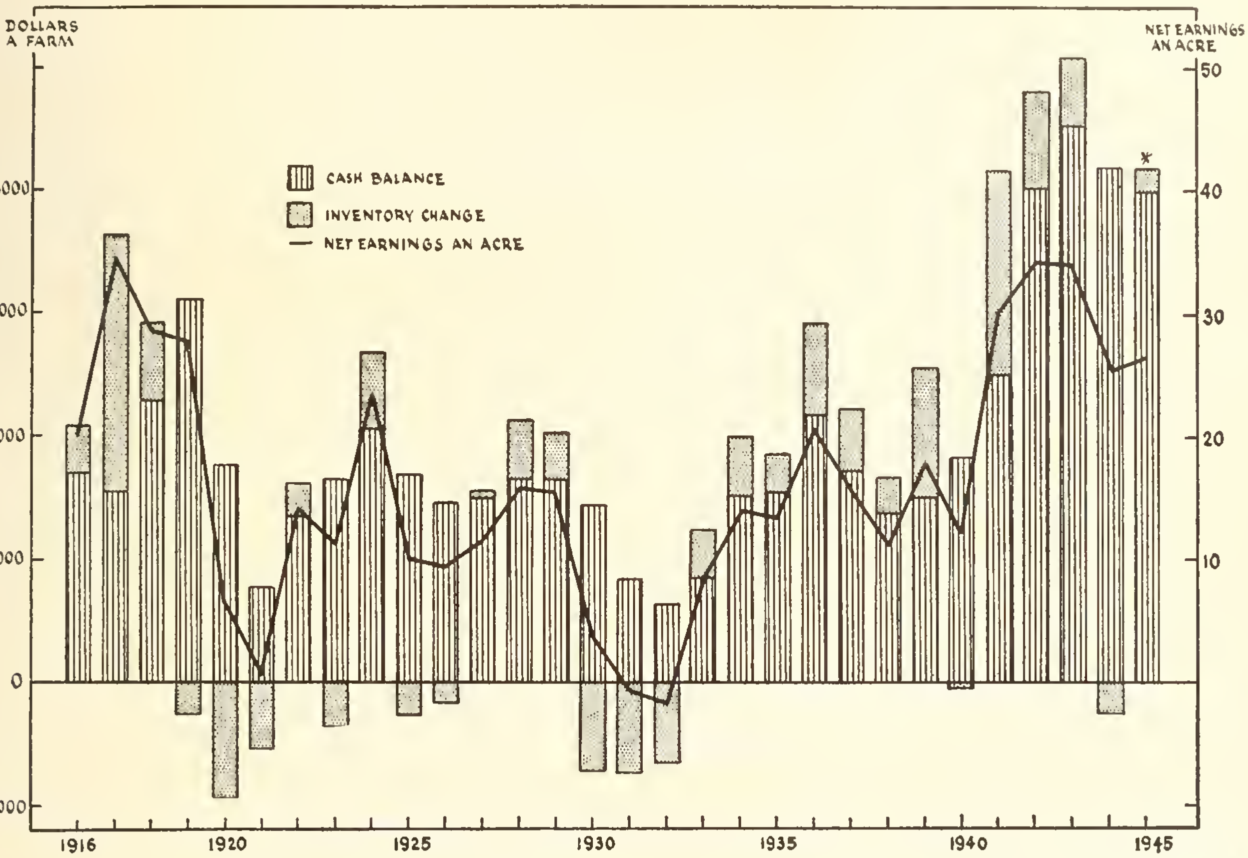
In the analysis given above, real estate values shown on the farm accounts were increased 63 percent to bring them in line with the 1945 market price. This adjustment was made on the basis of the increase in values that took place in Illinois from 1935-1939 to 1945. In the farm account books real estate values had not been increased; they remained at $61 an acre in 1945, the same as in 1935-1939. The interest rate on real estate was also adjusted from five to four percent to put it in line with the current mortgage rate.

Although this analysis shows that the gross earnings per $100 contributed annually to the operation of the farm were $113 for the tenant and $103 for the landlord, the reader is cautioned against (1) assuming that all tenants profited more than their landlords, and (2) concluding that results would be the same in any other year with the same leases in force but with changed price relationships and other conditions.

The Illinois crop-share and livestock-share lease forms have recently been revised. For copies, see your farm adviser.

A GRAPHIC REVIEW OF FARM EARNINGS AND RELATED INFORMATION FOR ACCOUNTING FARMS IN EAST CENTRAL ILLINOIS, 1916-1945[1]

Net farm earnings, as shown on the front cover and on this page, are calculated by subtracting value of unpaid labor from the sum of: (1) Cash balance, (2) inventory change, and (3) value of farm products used in the household. On the front cover and in Chart 1 net farm earnings are expressed on an acre basis. In Chart 1 the cash balance and inventory change are shown on the total farm basis.



* *Estimate for 1945*

Chart 1. Net Earnings an Acre; Cash Balance and Inventory Change a Farm

High farm earnings continued longer during World War II than during World War I. Furthermore, earnings were more fully realized in cash during the last war than during World War I. This situation resulted in the retirement of many farm mortgages and in the accumulation of cash reserves which foreshadow inflationary danger — especially in the land market.

During the 30 years, 1916-1945, inventories increased 19 times and decreased 11; all but two of the decreases were during the first 17 years. Increased inventories since 1933 have been due to increased production and higher prices.

Average value of unpaid labor, which is not shown in Chart 1, increased from $360 in 1916 to $1,800 in 1945 without any material increase in the amount of labor used. Whereas, the value of farm products used in the household varied from year to year depending principally on price changes and averaged $322.

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[1] East Central Illinois is the only area for which adequate records are available for 30 years, including the two World War periods.

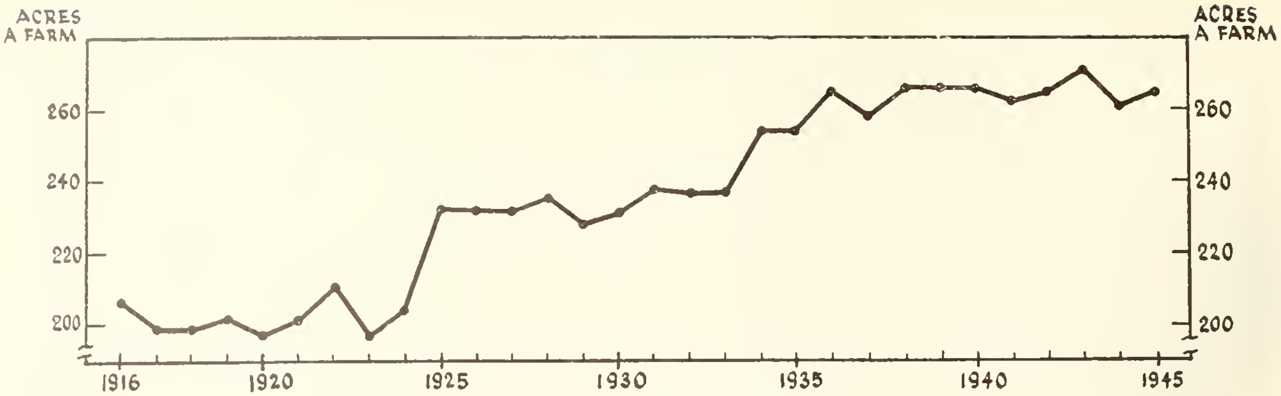


Chart 2. Variation in Size of Farms

Thirty years ago, 1916 to 1920, the accounting farms of East Central Illinois averaged 200 acres. More recently, 1941 to 1945, these farms averaged 265 acres — a 32 percent increase in size. The additional acres have added volume to the business and resulted in larger income per farm during World War II than during World War I even though prices of farm products were lower during World War II. This change in size is due primarily to the introduction of improved power, machinery, and equipment which makes it possible for the same labor to handle more land. The months of man labor used a farm has shown no material change.

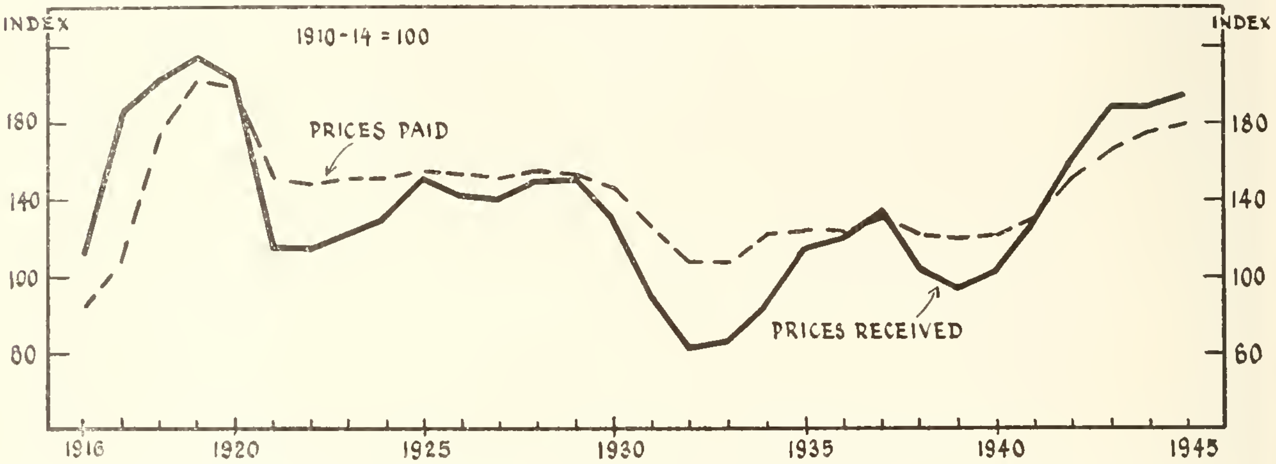


Chart 3. Prices Received by Illinois Farmers and Prices Paid by Farmers in the United States, 1916-1945

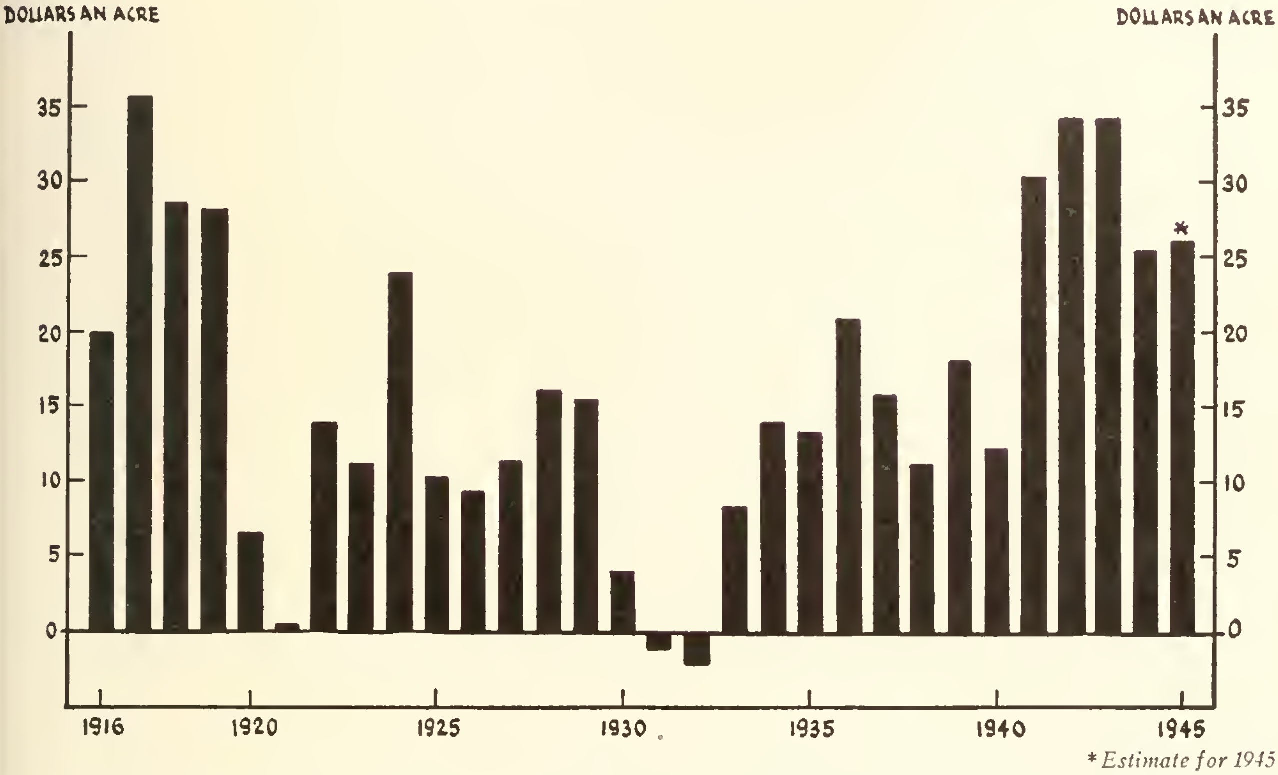
The only times during the past 30 years when prices received were appreciably above prices paid were during World Wars I and II. The 1937 year of favorable price relationships followed a drought which left farmers with small supplies of products to sell. Although prices received were lower during World War II than during World War I, net earnings an acre were at about the same level because of increased efficiency and higher production.

The price support program of 90 percent of parity or above for many farm products for two calendar years following the end of World War II will help cushion any decline that may take place in farm prices. Prices for things the farmer must buy, however, may be expected to remain relatively high for several years. Important factors affecting prices will be employment, national income and foreign demand for farm products.

Cooperative Extension Work in Agriculture and Home Economics: University of Illinois, College of Agriculture, and the United States Department of Agriculture cooperating. H. P. Rusk, *Director*. Acts approved by Congress May 8 and June 30, 1914.

(32409)

YOUR FARM BUSINESS REPORT 1945



**Estimate for 1945*

NET EARNINGS AN ACRE, EAST CENTRAL ILLINOIS ACCOUNTING FARMS, 1916-1945

Net farm earnings an acre from 1916 through 1945 varied from a gain of $35.51 in 1917 to a loss of $1.96 in 1932. Following World War I, earnings remained relatively high for almost two years, then dropped precipitously in 1920 and in 1921. For further information on long-time changes in earnings of Illinois accounting farms, see the inside back cover of this report.

FARMING-TYPE AREA EIGHT

Wabash Valley Grain and Livestock Area

NAME____

DEPARTMENT OF AGRICULTURAL ECONOMICS, UNIVERSITY OF ILLINOIS
COLLEGE OF AGRICULTURE, EXTENSION SERVICE IN AGRICULTURE AND HOME ECONOMICS
URBANA, ILLINOIS

AE-2392

UNIVERSITY *of* ILLINOIS
COLLEGE *of* AGRICULTURE
AGRICULTURAL EXPERIMENT STATION
URBANA, ILLINOIS

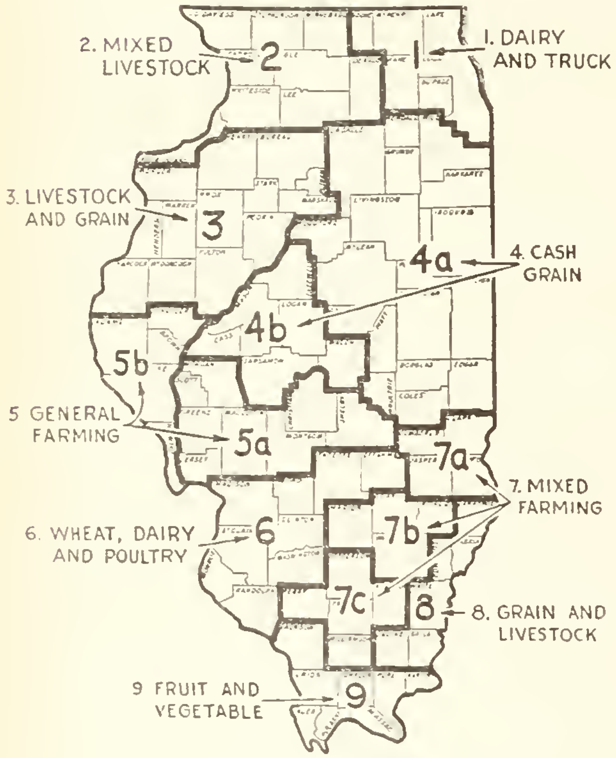
DEPARTMENT *of*
AGRICULTURAL ECONOMICS

Dear Cooperator:

This is the thirtieth annual report of farm account records kept by Illinois farmers enrolled in the farm accounting extension project conducted by this department. The earnings on farms, both during World War I and World War II, show some interesting comparisons which may well serve as a basis for anticipating a reduction in earnings during postwar years after deficits in food supplies have been made up.

The charts on the front and back cover pages of the report set forth the results from farm accounts in East Central Illinois. This is the only area of the state for which records were available for the entire 30-year period, but they are indicative of farm conditions throughout the state.

Of even greater importance to you than these results of the past 30 years, are the results from your own farm in comparison with the data from similar farms in your own section of the state, and with the data from your own farm in previous years.



THE NINE MAJOR TYPE-OF-FARMING AREAS IN ILLINOIS

Farm accounts have a number of uses among which are the following: First, the results from a group of farms serve as a standard or yardstick with which to measure your own accomplishments; second, analyzed over a period of years and studied in the light of existing economic conditions, they serve as a guide in planning for the future; and, third, in times of rapidly changing costs of production they serve as a guide for adjusting farm leases or father-son business agreements on an equitable basis.

The map on this page will identify the area for which this report is prepared.

We trust that this report will prove valuable to you.

Very truly yours,

H. C. M. CASE
Head of Department

Annual Farm Business Report

EIGHTY-THREE FARMS IN FARMING-TYPE AREA 8, 1945

J. B. Cunningham, J. E. Wills, E. N. Searls and O. B. Brown[1]

Net farm earnings on accounting farms in Farming-Type Area 8 were higher in 1945 than in 1944. The average farm net earnings were $2,513 in 1945; $2,032 in 1944; $3,243 in 1943; $3,058 in 1942; and $2,354 in 1941 (Table 2).

Items considered in calculating net earnings include cash receipts, cash expenses, inventory change, value of farm products used in the household and unpaid labor.

In comparing net earnings in 1945 with those of previous years two factors should be noted. The first is that charges for labor have been greatly increased. In 1945 the unpaid labor charge (operator's and family labor combined) averaged $1,394 per farm, or over twice as high as in 1941 (Table 2). This increased labor charge has been due to an increase in the monthly rate and not to an increase in number of months; it is an important factor in causing lower net earnings in the past two years. The second factor is that the average size of farm has increased. During the war years accounting farms in this area increased by about 25 acres per farm. Net earnings per acre were $10.18 in 1945; $8.38 in 1944; $13.65 in 1943; $14.05 in 1942; and $10.65 in 1941.

The averages presented in this report provide a good local yardstick of efficiency. From Tables 1 through 7, each cooperator may determine why his return for 1945 was above or below the average of other farms in the area. Whenever efficiency factors are affected by size, source of income and value of improved land, the records are sorted into groups having comparable conditions, and averages are run for each group (Table 1). This practice permits you to compare your farm with others that are more similar to yours than is the entire group.

---

[1] In cooperation with F. A. Stewart, who was fieldman in Edwards and Gallatin counties, and the following county farm advisers (number indicates records from each county).

*Clark	(3)	C. N. Glover	Lawrence	(11)	H. C. Wheeler
*Crawford	(3)	H. L. Miles	Saline	(1)	A. C. Kamm
Edwards	(49)	J. L. Diamond	Wabash	(8)	H. H. Lett
Gallatin	(15)	A. L. Oxford	White	(3)	Thurman Wright

* Included in this report because more similar to Area 8 than Area 7.

TABLE 1.--FACTORS USED TO ANALYZE THE FARM BUSINESS
Accounting Farms in Farming-Type Area 8, 1945

Item	Your farm	Standards for your farm	Average of 83 farms
(Those capitalized used in chart on opposite page)			
RATE EARNED ON INVESTMENT	______%	12.1%	12.1%
Labor and management earnings	$______	$______ a/	$2490
ACRES IN FARM	______	247.0	247.0
Acres in crops	______	139.3	139.3
GROSS EARNINGS PER ACRE	$______	$______ b/	$ 26.64
GROSS EXPENSE PER ACRE	______	______	16.46
Net earnings per acre	$______	$______	$ 10.18
Investments			
Value of improved land per acre	$______	$______ b/	$ 49
Total investment per acre	______	______	84
Land use			
Percent of land area tillable	______	______ b/	83.8%
Percent of tillable land in:			
Corn	______	______	24.6
Oats	______	______	2.6
Wheat	______	______	13.5
Soybeans for grain	______	______	6.2
HAY AND PASTURE (incl. cl. & gr. seed crops)	______	______	36.9
Other crops (includes idle tillable land)	______	______	11.2
Crop yields			
CORN, BU	______	______ b/	48.3
OATS, BU	______	______	22.8
WHEAT, BU	______	______	16.4
SOYBEANS, BU	______	______	16.2
Livestock factors			
FEED FED PER ACRE TO PRODUCTIVE LIVESTOCK	$______	$______ c/	$ 12.21
RETURNS PER $100 FEED FED	$______	$______	$ 153
Number of cows milked	______	______	8 d/
DAIRY RETURNS PER COW MILKED	$______	$______	$ 150
Number of litters farrowed	______	______	13 e/
NUMBER OF PIGS WEANED PER LITTER	______	______	6.7
Returns per litter farrowed	$______	$______	$ 215
Number of hens	______	______	164 f/
EGG RETURNS PER HEN	$______	$______	$ 3.68
Expense factors			
Labor: COST PER CROP ACRE	$______	$______ a/	$ 12.43
" Total months of labor	______	______	18.8
POWER AND MACHINERY COST PER CROP ACRE	$______	$______	$ 9.05
Land improvement cost per acre	______	______ b/	1.56
BUILDINGS COST PER ACRE	______	______ a/	.74
Land tax per acre	______	______ b/	.73

a/ Table 4, size of farm.
b/ Table 5, value of improved land.
c/ Table 6, source of income.
d/ Farms with over $299 dairy sales.
e/ Farms buying feeder pigs excluded.
f/ Farms with more than 49 hens.

USE THIS CHART TO STUDY YOUR BUSINESS
Accounting Farms in Farming-Type Area 8, 1945

The double line across the middle of the page represents the average for farms which are similar to your farm for the indicated factor. By drawing a line across each column at the place where your farm stands in that factor, you can compare your efficiency with that of other similar accounting farms in your area.

				Factors that affect earnings										Factors that affect expenses		
					Crop yields				Livestock							
Rate earned on investment, percent	Acres in farm	Gross earnings per acre	Gross expenses per acre	Percent of tillable land in hay and pas.	Corn, bu.	Oats, bu.	Wheat, bu.	Soybeans, bu.	Feed fed per acre to prod. livestock	Returns per $100 feed fed prod. l.s.	Dairy returns per cow milked	No. of pigs weaned per litter	Egg returns per hen	Labor cost per crop acre	Power and machinery cost per crop acre	Buildings cost per acre
22.1	397															
20.1	367															
18.1	337															
16.1	307															
14.1	277															
12.1	247															
10.1	217															
8.1	187															
6.1	157															
4.1	127															
2.1	97															
.1	67															
* 2%	30	$3	$2	2%	3	3	2	2	$2	$20	$10	.5	.50	$1	$1	.20

*Each space between lines represents the value indicated at bottom of each column.

(Higher values are recorded above the center of the page and lower values below, except for expenses, which are recorded in the opposite direction.)

TABLE 2.--INVESTMENTS, INVENTORY CHANGES, CASH EXPENSES, CASH RECEIPTS, AND EARNINGS
Accounting Farms in Farming-Type Area 8, 1945

Item	Capital investments		Change in inventory	
	Your farm	Average of 83 farms	Your farm	Average of 83 farms
Land	$	$ 11209	$ --	$ --
Land improvements		692		77
Farm buildings		2414		-49
Horses		193		-37
Prod. l.s.: Cattle		1301		99
Hogs		692		136
Sheep		44		3
Poultry		181		-6
Total productive livestock	( )	(2218)	( )	(232)
Feed, grain, and seeds		2244		512
Machinery and equipment		1544		92
Automobile (farm share)		186		-42
Totals	$	$ 20700	$	$ 785

Item	Cash expenses		Cash receipts	
	Your farm	Average of 83 farms	Your farm	Average of 83 farms
Land improvements	$	$ 470	$	$ 7
Farm buildings		139		4
Horses		8		17
Prod. l.s.: Cattle		380		1096
Dairy sales	--	--		404
Hogs		127		2382
Sheep		15		58
Poultry		49		148
Egg sales	--	--		533
Total productive livestock	( )	(571)	( )	(4621)
Feed, grain, and seeds		1264		2195
Machinery and equipment		1198		167
Automobile (farm share)		124		4
Livestock expense		50	--	--
A.A.A. receipts	--	--		120
Labor		355		24
Taxes		233	--	--
Miscellaneous		26		3
Totals	$	$ 4438	$	$ 7162

Item	Earnings					
	Your farm	Annual averages*				
		1945	1944	1943	1942	1941
Cash balance	$	$ 2724	$ 3344	$ 3530	$ 2450	$ 1492
Inventory change		785	-398	475	1106	1241
Farm products used in household		398	399	377	317	267
RECEIPTS LESS EXPENSES	$	$ 3907	$ 3345	$ 4382	$ 3873	$ 3000
Family labor		380	416	325	227	178
RETURN FOR CAPITAL, LABOR & MGT.	$	$ 3527	$ 2929	$ 4057	$ 3646	$ 2822
Operator's labor		1014	897	814	588	468
NET EARNINGS (Return for cap. & Mgt)	$	$ 2513	$ 2032	$ 3243	$ 3058	$ 2354
RATE EARNED ON INVESTMENT	%	12.1%	9.9%	15.8%	17.9%	15.4
Interest on investment at 5 percent	$	$ 1037	$ 1026	$ 1028	$ 855	$ 766
LABOR AND MANAGEMENT EARNINGS		2490	1903	3029	2791	2056

* Six records from Area 7 included in 1945

Inventory changes. In 1945 the farm inventory increased $785 in contrast to a decrease of $398 in 1944, but this increase was much less than the increase of $1,106 in 1942 (Table 3). The 1945 inventory increase was largely due to an increase in the feed, grain and seeds account. The average amounts of corn, oats, wheat and soybeans on hand in Area 8 at the two inventory periods are shown in the following table:

TABLE 3.--INVENTORIES OF GRAIN ON HAND
Accounting Farms in Farming-Type Area 8, 1945

Grain	Beginning of year (bushels)	End of year (bushels)	Change (bushels)
Corn	1,293	1,791	498
Oats	124	97	-27
Wheat	70	58	-12
Soybeans	59	65	6

Size of farm. As the average size of farm increased from 112 acres to 403 acres, the cost per crop acre for labor decreased from $18.53 to $10.60, and for power and machinery it decreased from $13.67 to $8.00. Likewise, the trend in building cost per acre was downward as the size of farms increased except for the farms averaging 403 acres in size (Table 4).

In comparing labor and management earnings for the various size groups, one should consider that, in general, such earnings increase as the size of farms increase when the average rate earned on investment is 5 percent or more, but that this earning situation is reversed when the average rate earned is less than 5 percent.

TABLE 4.--FARM EARNINGS AND OTHER FACTORS RELATED TO SIZE OF FARM
Accounting Farms in Farming-Type Area 8, 1945

	Total acres in farm			
Item	54 to 140	141 to 220	221 to 300	301 to 796
Number of farms....................	13	26	23	21
Acres in farm......................	112.0	180.7	256.1	402.9
Acres in crops.....................	68.4	104.5	145.0	220.2
Rate earned on investment..........	10.0%	13.5%	9.8%	13.3 %
Labor and management earnings......	$1,595	$2,257	$2,028	$3,837
Net earnings per acre..............	11.34	10.82	7.50	11.46
Labor cost per crop acre...........	$ 18.53	$ 14.36	$ 11.76	$ 10.60
Total months of labor..............	13.8	16.5	18.8	24.7
Power and mach. cost per crop acre.	$ 13.67	$ 9.31	$ 9.02	$ 8.00
Buildings cost per acre............	.94	.67	.59	.87
Feed fed per acre to prod. l.s.....	20.58	12.80	9.51	12.33

Land use. As the average per-acre value of improved land increased from $28 to $75, the tillable land in corn and soybeans increased from 20.7 per cent to 40.7 per cent and the net earnings per acre increased from $2.95 to $16.75. On the other hand, total hay and pasture decreased from 38.8 per cent to 29.3 per cent.

TABLE 5.--USE OF TILLABLE LAND AND OTHER FACTORS RELATED TO
THE VALUE OF IMPROVED LAND
Accounting Farms in Farming-Type Area 8, 1945

Item	Value of improved land			
	$16 to $32	$33 to $47	$48 to $62	$63 to $101
Number of farms	15	36	14	18
Value of improved land	$ 28	$ 41	$ 56	$ 75
Acres in farm	235.5	263.6	208.7	253.4
Rate earned on investment	5.8%	11.2%	14.8%	13.9%
Percent of land area tillable	76.7	85.1	87.7	84.2
Percent of tillable land in:				
Corn	16.8	21.6	27.4	34.6
Oats	2.7	3.4	1.8	1.3
Wheat	20.4	18.7	15.8	18.6
Soybeans for grain	3.9	7.0	6.3	6.1
Hay & pas. (incl. cl. & gr. seed crops)	38.8	35.0	38.3	29.3
Other crops (incl. idle tillable land)	17.4	14.3	10.4	10.1
Crop yields:				
Corn, bu	38.5	44.8	51.0	54.4
Oats, bu	11.9	27.6	14.7	19.9
Wheat, bu	14.0	16.9	16.9	16.8
Soybeans, bu	15.2	14.2	17.3	20.9
Gross earnings per acre	$ 17.50	$ 23.98	$ 31.15	$ 36.30
Gross expense per acre	14.55	15.49	17.10	19.55
Net earnings per acre	$ 2.95	$ 8.49	$ 14.05	$ 16.75
Land improvement cost per acre	$ 1.57	$ 1.48	$ 1.75	$ 1.61
Land tax per acre	.51	.62	.99	.98
Total investment per acre	51	75	95	120

Crop yields. Per acre yields of corn and soybeans tended to increase as the land value increased. The above table makes it possible for each cooperator to find out if his acreage in various crops, crop yields and per acre earnings were high or low in comparison with the average of other farms with about the same value of improved land.

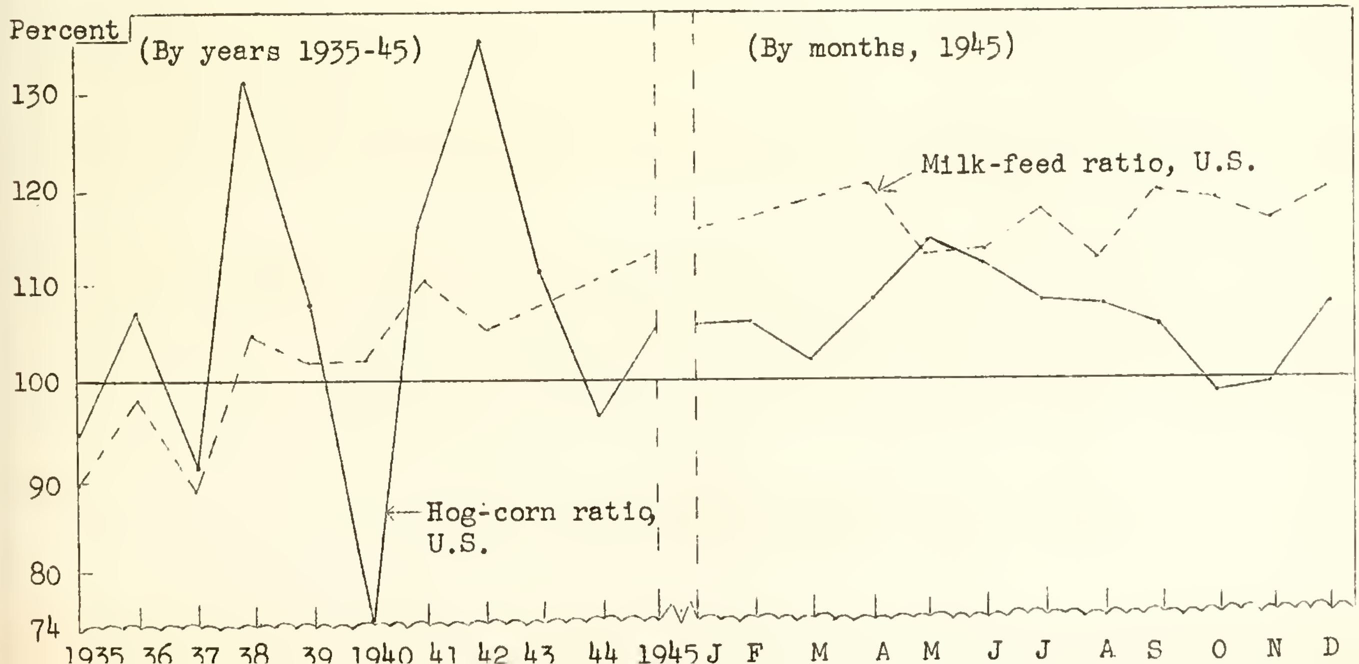
Source of income. Relative profits from various types of farming change from year to year, depending on conditions affecting production and price. Therefore, averages for one year should not be the basis for reorganizing the farm business. In 1945 conditions were most favorable for grain farms and those general farms with the least livestock (Table 6).

TABLE 6.--FARM EARNINGS AND OTHER FACTORS RELATED TO SOURCE OF INCOME
Accounting Farms in Farming-Type Area 8, 1945

Item	Source of income			
			General farms	
	Grain above 40%	Hogs above 40%	Livestock above 70%	Livestock under 70%
Number of farms....................	17	34	17	15
Acres in farms.....................	273.1	258.1	228.2	213.9
Rate earned on investment..........	15.1%	11.6%	6.9%	15.1%
Feed fed per acre to prod. l.s.....	$ 8.08	$ 15.17	$ 12.28	$ 10.02
Returns per $100 feed fed..........	147	148	159	172
Number of cows milked..............	6.1	6.0	9.3	9.3
Dairy returns per cow milked.......	$153	$145	$172	$150
Number of litters farrowed.........	7.1	18.3	6.2	7.8
Number of pigs weaned per litter...	5.9	6.9	7.2	7.5
Returns per litter farrowed........	$177	$223	$230	$230
Number of hens.....................	143	161	197	157
Egg returns per hen................	$ 3.37	$ 3.41	$ 4.31	$ 3.75

Feeding ratios. Feeding ratios in 1945 were more favorable for the dairy farmer than for the hog farmer (Figure 1).

FIGURE 1.--HOG-CORN AND MILK-FEED PRICE RATIOS, 1935-45, BY MONTHS 1945
(1925-44 = 100)



FARM LEASES

In recent years, farm leasing arrangements have been affected by the increased mechanization of farms, higher labor costs, higher land values, lower interest rates, governmental programs, increased number of young men ready to begin farming, and other changing conditions. Many new leases are being written, and old ones are being adjusted.

In order to keep leasing arrangements fair to both landlord and tenant, it is necessary to look at the lease as a whole as well as at its individual parts. The lease is fair only if the landlord and tenant share in the income in proportion to the value of their contributions. This principle is simple, but its application is not easy because of the difficulties in valuing capital, interest rates, unpaid labor, management and other items. Either current values or long-time normal values must be alike for all items.

TABLE 7.--CONTRIBUTIONS AND GROSS EARNINGS OF TENANTS AND LANDLORDS ON RENTED FARMS1/
Accounting Farms in Farming-Type Area 6, 1945

Item	Sixty-one rented farms	
	Tenant's share	Landlord's share
Contributions		
Real estate: $20,175 @ 4%........................	$ ---	$ 807
Operating capital: Tenant, $6766; Lld., $281 @ 5%	338	14
Expenses and net decreases......................	2,654	410
Unpaid labor....................................	1,825	---
Totals..	$4,817	$1,231
Gross earnings (receipts and net increases)........	$5,451	$1,271
Gross earnings per $100 contributed................	$ 113	$ 103

1/ This table is also used in reports for Areas 7, 8, and 9 to illustrate the principle involved in making fair leases.

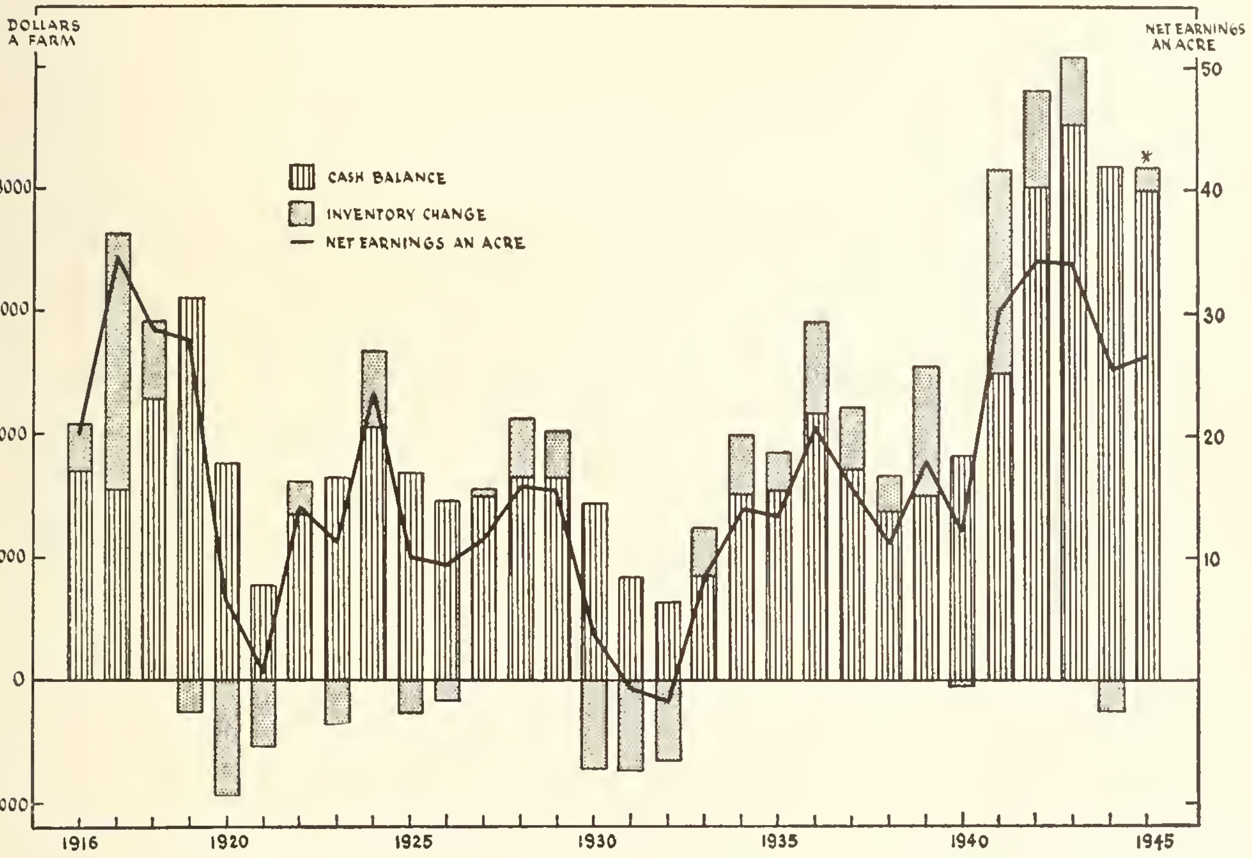
In the analysis given above, real estate values shown on the farm accounts were increased 63 percent to bring them in line with the 1945 market price. This adjustment was made on the basis of the increase in values that took place in Illinois from 1935-1939 to 1945. In the farm account books real estate values had not been increased; they remained at $61 an acre in 1945, the same as in 1935-1939. The interest rate on real estate was also adjusted from five to four percent to put it in line with the current mortgage rate.

Although this analysis shows that the gross earnings per $100 contributed annually to the operation of the farm were $113 for the tenant and $103 for the landlord, the reader is cautioned against (1) assuming that all tenants profited more than their landlords, and (2) concluding that results would be the same in any other year with the same leases in force but with changed price relationships and other conditions.

The Illinois crop-share and livestock-share lease forms have recently been revised. For copies, see your farm adviser.

A GRAPHIC REVIEW OF FARM EARNINGS AND RELATED INFORMATION FOR ACCOUNTING FARMS IN EAST CENTRAL ILLINOIS, 1916-1945[1]

Net farm earnings, as shown on the front cover and on this page, are calculated by subtracting value of unpaid labor from the sum of: (1) Cash balance, (2) inventory change, and (3) value of farm products used in the household. On the front cover and in Chart 1 net farm earnings are expressed on an acre basis. In Chart 1 the cash balance and inventory change are shown on the total farm basis.



* Estimate for 1945

Chart 1. Net Earnings an Acre; Cash Balance and Inventory Change a Farm

High farm earnings continued longer during World War II than during World War I. Furthermore, earnings were more fully realized in cash during the last war than during World War I. This situation resulted in the retirement of many farm mortgages and in the accumulation of cash reserves which foreshadow inflationary danger — especially in the land market.

During the 30 years, 1916-1945, inventories increased 19 times and decreased 11; all but two of the decreases were during the first 17 years. Increased inventories since 1933 have been due to increased production and higher prices.

Average value of unpaid labor, which is not shown in Chart 1, increased from $360 in 1916 to $1,800 in 1945 without any material increase in the amount of labor used. Whereas, the value of farm products used in the household varied from year to year depending principally on price changes and averaged $322.

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[1] East Central Illinois is the only area for which adequate records are available for 30 years, including the two World War periods.

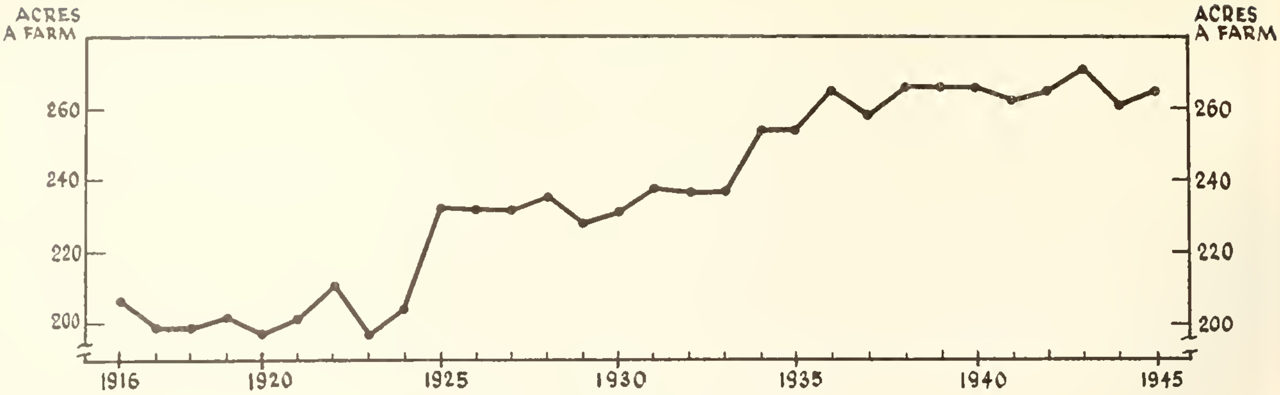


Chart 2. Variation in Size of Farms

Thirty years ago, 1916 to 1920, the accounting farms of East Central Illinois averaged 200 acres. More recently, 1941 to 1945, these farms averaged 265 acres — a 32 percent increase in size. The additional acres have added volume to the business and resulted in larger income per farm during World War II than during World War I even though prices of farm products were lower during World War II. This change in size is due primarily to the introduction of improved power, machinery, and equipment which makes it possible for the same labor to handle more land. The months of man labor used a farm has shown no material change.

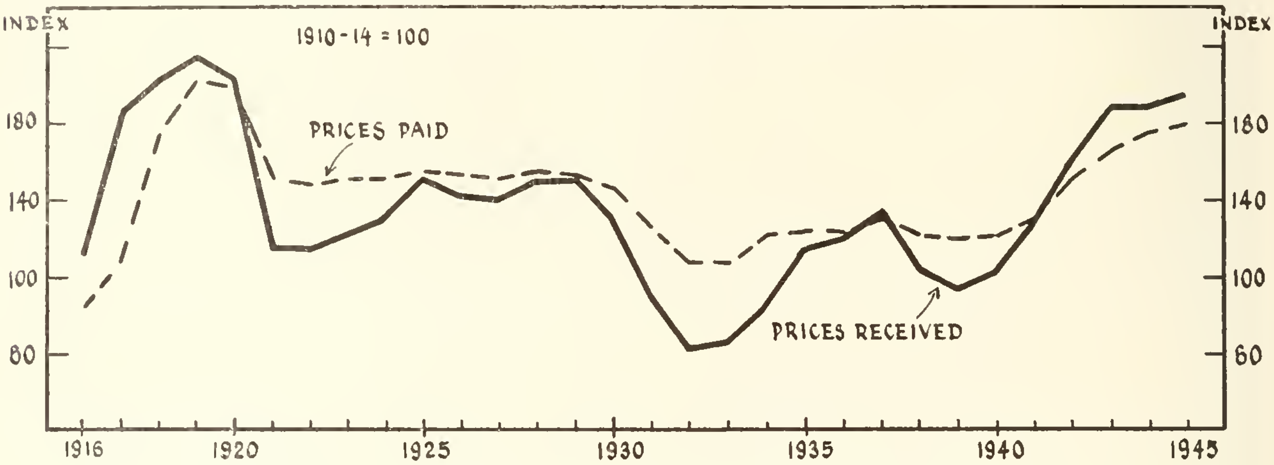


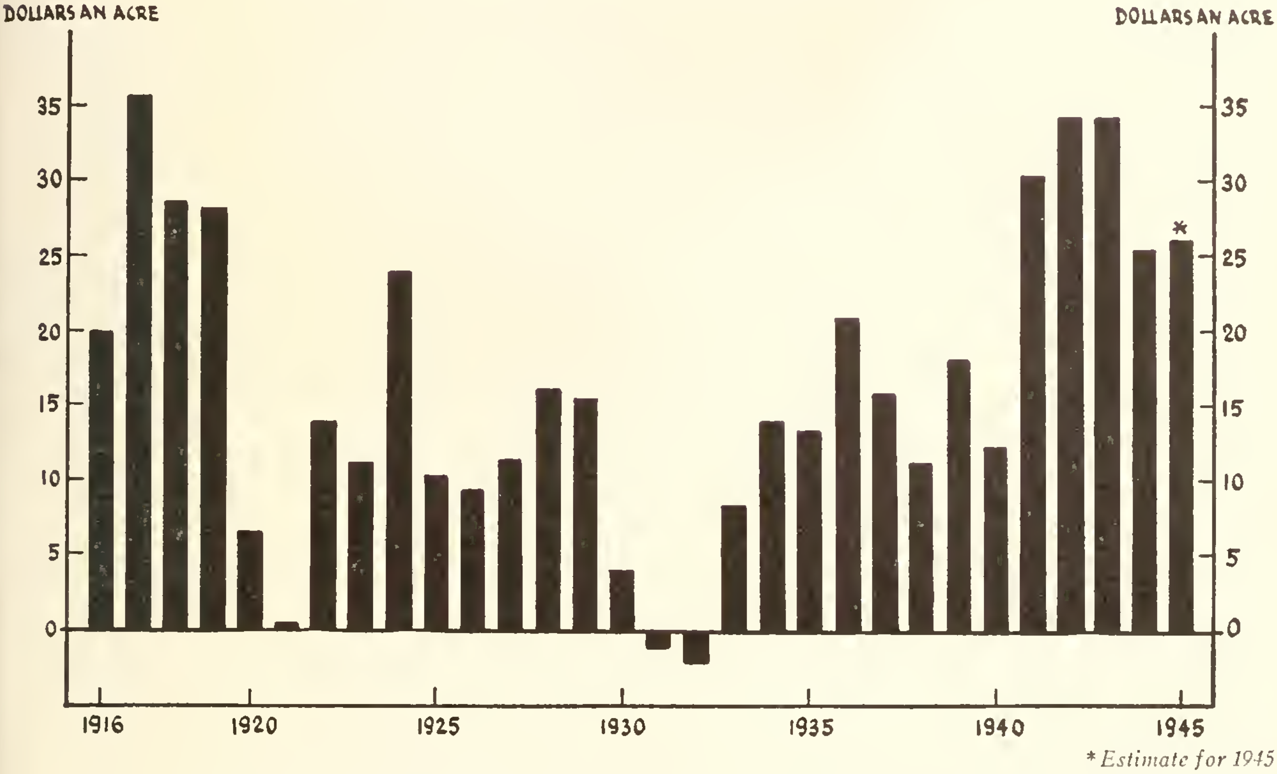
Chart 3. Prices Received by Illinois Farmers and Prices Paid by Farmers in the United States, 1916-1945

The only times during the past 30 years when prices received were appreciably above prices paid were during World Wars I and II. The 1937 year of favorable price relationships followed a drought which left farmers with small supplies of products to sell. Although prices received were lower during World War II than during World War I, net earnings an acre were at about the same level because of increased efficiency and higher production.

The price support program of 90 percent of parity or above for many farm products for two calendar years following the end of World War II will help cushion any decline that may take place in farm prices. Prices for things the farmer must buy, however, may be expected to remain relatively high for several years. Important factors affecting prices will be employment, national income and foreign demand for farm products.

Cooperative Extension Work in Agriculture and Home Economics: University of Illinois, College of Agriculture, and the United States Department of Agriculture cooperating. H. P. Rusk, *Director*. Acts approved by Congress May 8 and June 30, 1914. (32409)

YOUR FARM BUSINESS REPORT 1945



NET EARNINGS AN ACRE, EAST CENTRAL ILLINOIS ACCOUNTING FARMS, 1916-1945

Net farm earnings an acre from 1916 through 1945 varied from a gain of $35.51 in 1917 to a loss of $1.96 in 1932. Following World War I, earnings remained relatively high for almost two years, then dropped precipitously in 1920 and in 1921. For further information on long-time changes in earnings of Illinois accounting farms, see the inside back cover of this report.

FARMING-TYPE AREA NINE

Southern Fruit and Vegetable Area

NAME____

DEPARTMENT OF AGRICULTURAL ECONOMICS, UNIVERSITY OF ILLINOIS
COLLEGE OF AGRICULTURE, EXTENSION SERVICE IN AGRICULTURE AND HOME ECONOMICS
URBANA, ILLINOIS

AE-2393

UNIVERSITY *of* ILLINOIS
COLLEGE *of* AGRICULTURE
AGRICULTURAL EXPERIMENT STATION
URBANA, ILLINOIS

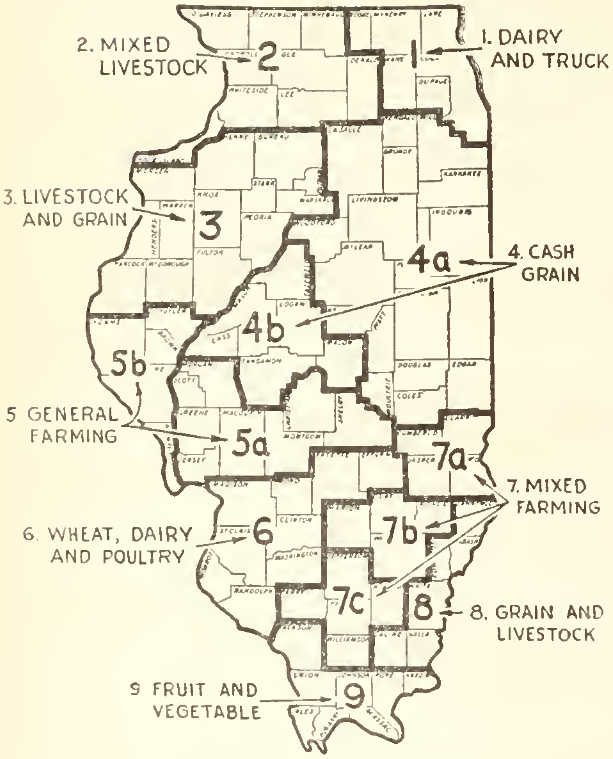
DEPARTMENT *of*
AGRICULTURAL ECONOMICS

Dear Cooperator:

This is the thirtieth annual report of farm account records kept by Illinois farmers enrolled in the farm accounting extension project conducted by this department. The earnings on farms, both during World War I and World War II, show some interesting comparisons which may well serve as a basis for anticipating a reduction in earnings during postwar years after deficits in food supplies have been made up.

The charts on the front and back cover pages of the report set forth the results from farm accounts in East Central Illinois. This is the only area of the state for which records were available for the entire 30-year period, but they are indicative of farm conditions throughout the state.

Of even greater importance to you than these results of the past 30 years, are the results from your own farm in comparison with the data from similar farms in your own section of the state, and with the data from your own farm in previous years.



THE NINE MAJOR TYPE-OF-FARMING AREAS IN ILLINOIS

Farm accounts have a number of uses among which are the following: First, the results from a group of farms serve as a standard or yardstick with which to measure your own accomplishments; second, analyzed over a period of years and studied in the light of existing economic conditions, they serve as a guide in planning for the future; and, third, in times of rapidly changing costs of production they serve as a guide for adjusting farm leases or father-son business agreements on an equitable basis.

The map on this page will identify the area for which this report is prepared.

We trust that this report will prove valuable to you.

Very truly yours,

H. C. M. CASE
Head of Department

Annual Farm Business Report

THIRTY-THREE FARMS IN FARMING-TYPE AREA 9, 1945

J. B. Cunningham, J. E. Wills, E. N. Searls and O. B. Brown[1]

Net farm earnings on accounting farms in Farming-Type Area 9 were higher in 1945 than in 1944. The average net earnings were $1,330 in 1945; $1,111 in 1944; $1,914 in 1943; $1,896 in 1942; and $1,188 in 1941 (Table 2). The items considered in calculating net earnings include cash receipts, cash expenses, inventory change, value of farm products used in the household and unpaid labor.

In comparing net earnings in 1945 with those of previous years, two factors should be noted. The first is that charges for labor have been greatly increased. In 1945 the unpaid labor charge (operator's and family labor combined) averaged $1.331 per farm, or twice as high as in 1941 (Table 2). This increased labor charge has been due to an increase in the monthly rate and not to an increase in number of months; it is an important factor in the lower net earnings in the past two years. The second factor is that the average size of farm has increased. Since the high income year of 1942, net earnings per acre have declined more than net earnings per farm. Net earnings per acre were $5.60 in 1945; $4.33 in 1944; $8.02 in 1943; $8.85 in 1942 and $5.13 in 1941.

The averages presented in this report provide a good local yardstick of efficiency. From Tables 1 through 7, each cooperator may determine why his return for 1945 was above or below the average of other farms in the area. Whenever efficiency factors are affected by size, source of income, value of improved land or amount of feed fed, the records are sorted into groups having comparable conditions, and averages are run for each group (Table 1). This practice permits you to compare your farm with others that are more similar to yours than is the entire group.

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[1] In cooperation with F. A. Stewart, who was fieldman in Pope-Hardin and Johnson counties, and the following county farm advisers (number indicates records from each county):

Jackson	(15)	J. G. McCall (W. C. Anderson since Mar. 1, 1946)
Johnson	(16)	Harold H. Gordon, Farm Adviser at large (Ben F. Wallace since Feb. 1, 1945)
Massac	(1)	J. G. Walter (Leo Sharp since Oct. 1, 1945)
Pope-Hardin	(14)	G. C. Smith

TABLE 1.--FACTORS USED TO ANALYZE THE FARM BUSINESS
Accounting Farms in Farming-Type Area 9, 1945

Item (Those capitalized used in chart on opposite page)	Your farm	Standards for your farm	Average of 33 farms
RATE EARNED ON INVESTMENT	%	10.3 %	10.3 %
Labor and management earnings	$	$ a/	$1653
ACRES IN FARM		237.4	237.4
Acres in crops		85.2	85.2
GROSS EARNINGS PER ACRE	$	$ b/	$ 17.92
GROSS EXPENSE PER ACRE			12.32
Net earnings per acre	$	$	$ 5.60
Investments			
Value of improved land per acre	$	$ b/	$ 33
Total investment per acre			54
Land use			
Percent of land area tillable		b/	69.6
Percent of tillable land in:			
Corn			17.1
Oats			2.8
Wheat			9.4
Soybeans for grain			4.5
HAY AND PASTURE (incl. cl. & gr. seed crops)			57.4
Other crops (includes idle tillable land)			8.8
Crop yields			
CORN, BU		b/	40.7
OATS, BU			13.4
WHEAT, BU			16.3
SOYBEANS, BU			16.8
Livestock factors			
FEED FED PER ACRE TO PRODUCTIVE LIVESTOCK	$	$ c/	$ 7.78
RETURNS PER $100 FEED FED	$	$	$ 186
Number of cows milked			9 d/
DAIRY RETURNS PER COW MILKED	$	$	$ 166
Number of litters farrowed			6.3 e/
NUMBER OF PIGS WEANED PER LITTER			5.7
Returns per litter farrowed	$	$	$ 190
Number of hens			150 f/
EGG RETURNS PER HEN	$	$	$ 3.21
Expense factors			
Labor: COST PER CROP ACRE	$	$ a/	$ 17.76
" Total months of labor			17.3
POWER AND MACHINERY COST PER CROP ACRE	$	$	$ 10.56
Land improvement cost per acre		b/	.71
BUILDINGS COST PER ACRE		a/	.51
Land tax per acre		b/	.45

a/ Table 4, size of farm.
b/ Table 5, value of improved land.
c/ Table 6, source of income.
d/ Farms with over $299 dairy sales.
e/ Farms buying feeder pigs excluded.
f/ Farms with more than 49 hens.

USE THIS CHART TO STUDY YOUR BUSINESS
Accounting Farms in Farming-Type Area 9, 1945

The double line across the middle of the page represents the average for farms which are similar to your farm for the indicated factor. By drawing a line across each column at the place where your farm stands in that factor, you can compare your efficiency with that of other similar accounting farms in your area.

				Factors that affect earnings										Factors that affect expenses		
					Crop yields				Livestock							
Rate earned on investment, percent	Acres in farm	Gross earnings per acre	Gross expenses per acre	Percent of tillable land in hay and pas.	Corn, bu.	Oats, bu.	Wheat, bu.	Soybeans, bu.	Feed fed per acre to prod. livestock	Returns per $100 feed fed prod. l.s.	Dairy returns per cow milked	No. of pigs weaned per litter	Egg returns per hen	Labor cost per crop acre	Power and machinery cost per crop acre	Buildings cost per acre
20.3	387															
18.3	357															
16.3	327															
14.3	297															
12.3	267															
10.3	237															
8.3	207															
6.3	177															
4.3	147															
2.3	117															
.3	87															
-1.7	57															
* 2%	30	$3	$2	2%	2	2	2	2	$2	$20	$10	.5	.50	$1	$1	.20

*Each space between lines represents the value indicated at bottom of each column.

(Higher values are recorded above the center of the page and lower values below, except for expenses, which are recorded in the opposite direction).

TABLE 2.--INVESTMENTS, INVENTORY CHANGES, CASH EXPENSES, CASH RECEIPTS, AND EARNINGS
Accounting Farms in Farming-Type Area 9, 1945

Item	Capital investments		Change in inventory	
	Your farm	Average of 33 farms	Your farm	Average of 33 farms
Land	$	$ 6256	$ --	$ --
Land improvements		356		42
Farm buildings		1348		-7
Horses		363		-72
Prod. l.s.: Cattle		1422		140
Hogs		373		131
Sheep		103		-11
Poultry		174		-10
Total productive livestock	( )	(2072)	( )	(250)
Feed, grain, and seeds		1441		255
Machinery and equipment		952		77
Automobile (farm share)		119		-17
Totals	$	$ 12907	$	$ 528

Item	Cash expenses		Cash receipts	
	Your farm	Average of 33 farms	Your farm	Average of 33 farms
Land improvements	$	$ 211	$	$ 4
Farm buildings		113		--
Horses		41		99
Prod. l.s.: Cattle		271		897
Dairy sales	--	--		757
Hogs		142		978
Sheep		14		130
Poultry		39		139
Egg sales	--	--		427
Total productive livestock	( )	(466)	( )	(3328)
Feed, grain, and seeds		763		939
Machinery and equipment		815		143
Automobile (farm share)		88		1
Livestock expense		28	--	--
A.A.A. receipts	--	--		92
Labor		191		15
Taxes		154	--	--
Miscellaneous		22		--
Totals	$	$ 2892	$	$ 4621

Item	Earnings					
	Your farm	Annual averages				
		1945	1944	1943	1942	1941
Cash balance	$	$ 1729	$ 1634	$ 2361	$ 1586	$ 990
Inventory change		528	192	272	743	583
Farm products used in household		404	409	404	345	278
RECEIPTS LESS EXPENSES	$	$ 2661	$ 2235	$ 3037	$ 2674	$ 1851
Family labor		363	347	366	208	214
RETURN FOR CAPITAL, LABOR & MGT.	$	$ 2298	$ 1888	$ 2671	$ 2466	$ 1637
Operator's labor		968	777	757	570	449
NET EARNINGS (Return for cap.& Mgt.)	$	$ 1330	$ 1111	$ 1914	$ 1896	$ 1188
RATE EARNED ON INVESTMENT	%	10.3%	7.5%	12.8%	15.5%	9.6%
Interest on investment at 5 percent	$	$ 645	$ 743	$ 750	$ 613	$ 619
LABOR AND MANAGEMENT EARNINGS		1653	1145	1921	1853	1018

Inventory changes. In 1945 the farm inventory increased $528 in contrast to an increase of $192 in 1944 (Table 2). The 1945 inventory increase was partly due to an increase in the feed, grain and seeds account. The average amounts of corn, oats, wheat and soybeans on hand in Area 9 at the two inventory periods are shown in the following table:

TABLE 3.--INVENTORIES OF GRAIN ON HAND
Accounting Farms in Farming-Type Area 9, 1945

Grain	Beginning of year (bushels)	End of year (bushels)	Change (bushels)
Corn	712	833	121
Oats	61	24	-37
Wheat	45	34	-11
Soybeans	39	49	10

Size of farm. The 17 smaller farms, averaging 153 acres in size, used about the same months of labor as the 16 larger farms, averaging 327 acres or double in size (Table 4). Other significant comparisons between the smaller and the larger farms include labor cost per crop acre, $25.46 and $13.44 respectively; power and machinery cost per crop acre, $12,61 and $9.43; and feed fed per acre, $10.24 and $6.53.

In comparing labor and management earnings for small and large farms, one should consider that in general such earnings increase as the size of farms increase when the average rate earned on investment is more than 5 percent (usual capitalization rate), but this earning situation is reversed when the average rate earned is less than 5 percent.

TABLE 4.--FARM EARNINGS AND OTHER FACTORS RELATED TO SIZE OF FARM
Accounting Farms in Farming-Type Area 9, 1945

Item	Total acres in farm: Less than 220	Total acres in farm: 220 and more
Number of farms	17	16
Acres in farm	153	327
Acres in crops	59.4	112.6
Rate earned on investment	9.1%	11.0%
Labor and management earnings	$ 1,384	$ 1,937
Net earnings per acre	5.79	5.51
Labor cost per crop acre	$ 25.46	$ 13.44
Total months of labor	17.2	17.3
Power and mach. cost per crop acre	$ 12.61	$ 9.43
Buildings cost per acre	.74	.39
Feed fed per acre to prod. l.s.	10.34	6.52

Land use. As the average value per acre of improved land increased from $20 to $48, the tillable land in hay and pasture decreased from 64.0 percent to 47.6 percent. On the other hand, the total of all grain and other crops increased from 46 percent to 52.4 percent (Table 5).

TABLE 5.--USE OF TILLABLE LAND AND OTHER FACTORS RELATED TO VALUE OF IMPROVED LAND
Accounting Farms in Farming-Type Area 9, 1945

	Value of improved land		
Item	$11 to $27	$28 to $36	$37 to $59
Number of farms	12	11	10
Value of improved land	$ 20	$ 32	$ 48
Acres in farm	237.6	220.8	255.3
Rate earned on investment	13.4%	10.2%	8.2%
Percent of land area tillable	68.3	80.2	61.1
Percent of tillable land in:			
Corn	18.9	14.3	18.2
Oats	2.1	4.8	1.2
Wheat	8.3	9.5	10.5
Soybeans for grain	.9	5.3	8.0
Hay & Pas. (incl. cl. & gr. seed crops)	64.0	58.5	47.6
Other crops (incl. idle tillable land)	5.8	7.6	14.5
Crop yields			
Corn, bu.	39.2	39.4	44.0
Oats, bu.	4.9	14.8	25.3
Wheats, bu.	13.3	18.7	16.8
Soybeans, bu.	12.9	16.4	17.4
Gross earnings per acre	$ 17.90	$ 20.54	$ 15.45
Gross expense per acre	12.67	13.94	10.40
Net earnings per acre	$ 5.23	$ 6.60	$ 5.05
Land improvement cost per acre	$ .59	$ .71	$ .80
Land tax per acre	.41	.51	.44
Total investment per acre	39	65	62

Crop yields and other factors. In general, crop yields increased as land values increased. The failure of any crop to follow such a trend may be attributed to one or more of the following influences: an inadequate sample, land values not comparable, and the effect of management and adverse weather conditions on individual farms. Failure of net earnings per acre to follow a similar trend should be attributed to the same influences.

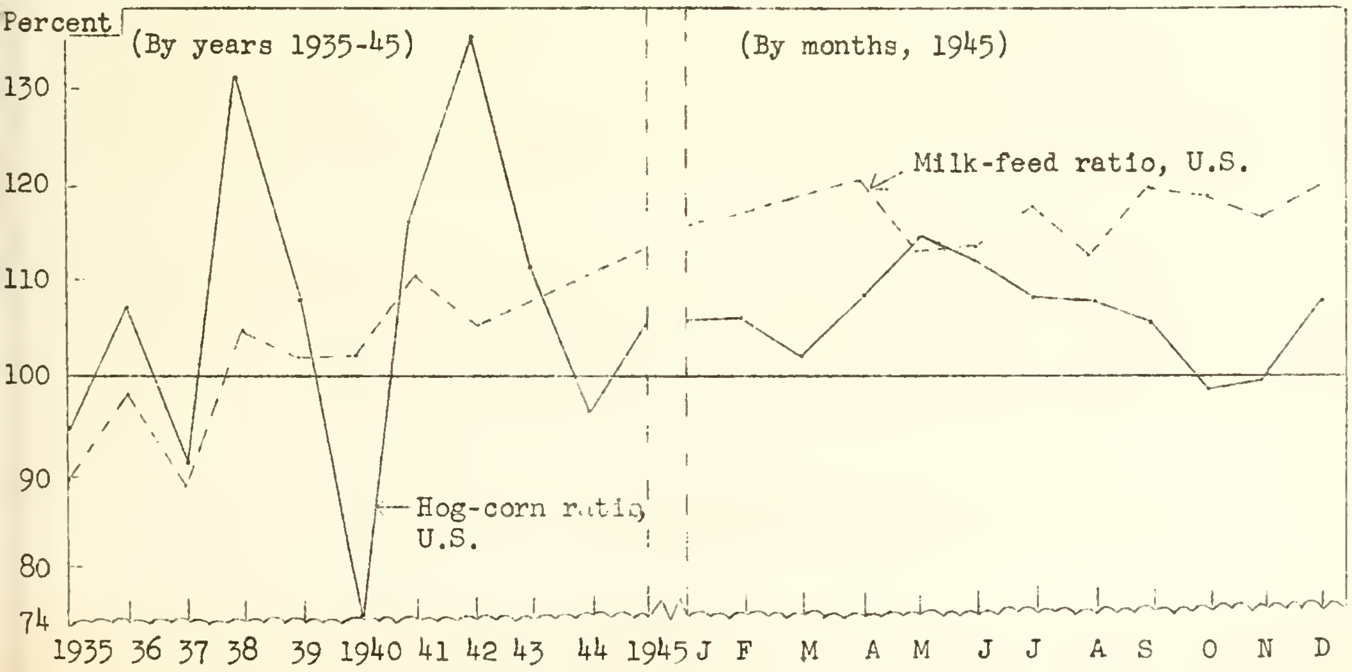
Source of income. Relative profit from various types of farming changes from year to year, depending on conditions affecting production and price. Therefore, averages for any one year should not be the basis for reorganizing the farm business. In 1945 conditions were most favorable for general farms with less than 70 percent of their income from livestock; in this group were several farms with over 40 percent of their income from grain (Table 6).

TABLE 6.--FARM EARNINGS AND OTHER FACTORS RELATED TO SOURCE OF INCOME
Accounting Farms in Farming-Type Area 9, 1945

Item	Source of income Livestock above 70%	 Livestock under 70%
Number of farms	22	11
Acres in farm	210.4	291.4
Rate earned on investment	8.0%	14.1%
Feed fed per acre to prod. l.s	$ 9.88	$ 4.77
Returns per $100 feed fed	$ 176	$ 216
Number of cows milked	9.6	7.0
Dairy returns per cow milked	$ 176	$ 124
Number of litters farrowed	5.4	8.0
Number of pigs weaned per litter	5.9	5.7
Returns per litter farrowed	$ 194	$ 186
Number of hens	154	127
Egg returns per hen	$ 3.64	$ 2.09

Feeding ratios. Feeding ratios in 1945 were more favorable for the dairy farmer than for the hog farmer (Figure 1).

FIGURE 1.--HOG-CORN AND MILK-FEED PRICE RATIOS, 1935-45, BY MONTHS 1945
(1925-44 = 100)



FARM LEASES

In recent years, farm leasing arrangements have been affected by the increased mechanization of farms, higher labor costs, higher land values, lower interest rates, governmental programs, increased number of young men ready to begin farming, and other changing conditions. Many new leases are being written, and old ones are being adjusted.

In order to keep leasing arrangements fair to both landlord and tenant, it is necessary to look at the lease as a whole as well as at its individual parts. The lease is fair only if the landlord and tenant share in the income in proportion to the value of their contributions. This principle is simple, but its application is not easy because of the difficulties in valuing capital, interest rates, unpaid labor, management and other items. Either current values or long-time normal values must be alike for all items.

TABLE 7.--CONTRIBUTIONS AND GROSS EARNINGS OF TENANTS AND LANDLORDS ON RENTED FARMS[1]
Accounting Farms in Farming-Type Area 6, 1945

Item	Sixty-one rented farms	
	Tenant's share	Landlord's share
Contributions		
Real estate: $20,175 @ 4%......................	$ ---	$ 807
Operating capital: Tenant, $6766; Lld., $281 @ 5%	338	14
Expenses and net decreases......................	2,654	410
Unpaid labor....................................	1,825	---
Totals......................................	$4,817	$1,231
Gross earnings (receipts and net increases)........	$5,451	$1,271
Gross earnings per $100 contributed...............	$ 113	$ 103

[1] This table is also used in reports for Areas 7, 8, and 9 to illustrate the principle involved in making fair leases.

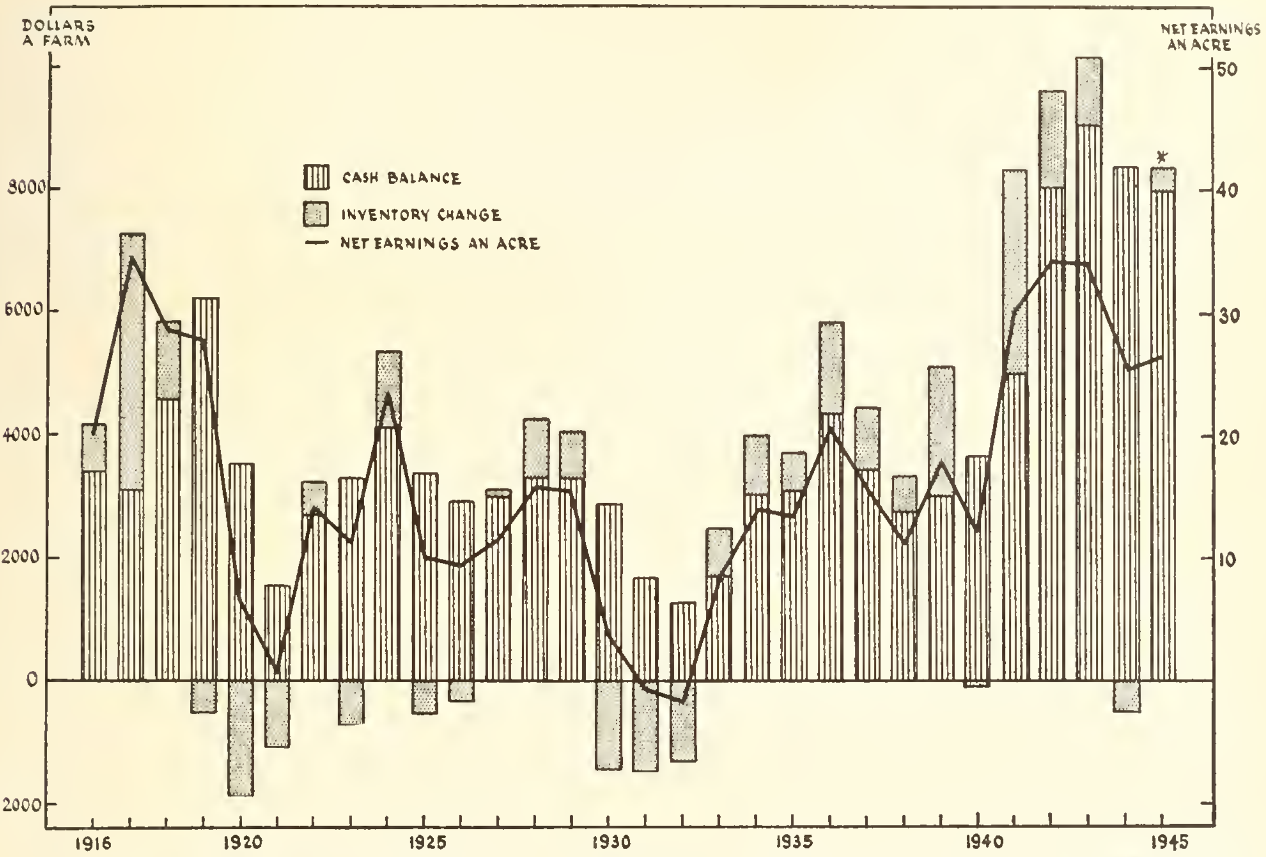
In the analysis given above, real estate values shown on the farm accounts were increased 63 percent to bring them in line with the 1945 market price. This adjustment was made on the basis of the increase in values that took place in Illinois from 1935-1939 to 1945. In the farm account books real estate values had not been increased; they remained at $61 an acre in 1945, the same as in 1935-1939. The interest rate on real estate was also adjusted from five to four percent to put it in line with the current mortgage rate.

Although this analysis shows that the gross earnings per $100 contributed annually to the operation of the farm were $113 for the tenant and $103 for the landlord, the reader is cautioned against (1) assuming that all tenants profited more than their landlords, and (2) concluding that results would be the same in any other year with the same leases in force but with changed price relationships and other conditions.

The Illinois crop-share and livestock-share lease forms have recently been revised. For copies, see your farm adviser.

A GRAPHIC REVIEW OF FARM EARNINGS AND RELATED INFORMATION FOR ACCOUNTING FARMS IN EAST CENTRAL ILLINOIS, 1916-1945[1]

Net farm earnings, as shown on the front cover and on this page, are calculated by subtracting value of unpaid labor from the sum of: (1) Cash balance, (2) inventory change, and (3) value of farm products used in the household. On the front cover and in Chart 1 net farm earnings are expressed on an acre basis. In Chart 1 the cash balance and inventory change are shown on the total farm basis.



* *Estimate for 1945*

Chart 1. Net Earnings an Acre; Cash Balance and Inventory Change a Farm

High farm earnings continued longer during World War II than during World War I. Furthermore, earnings were more fully realized in cash during the last war than during World War I. This situation resulted in the retirement of many farm mortgages and in the accumulation of cash reserves which foreshadow inflationary danger — especially in the land market.

During the 30 years, 1916-1945, inventories increased 19 times and decreased 11; all but two of the decreases were during the first 17 years. Increased inventories since 1933 have been due to increased production and higher prices.

Average value of unpaid labor, which is not shown in Chart 1, increased from $360 in 1916 to $1,800 in 1945 without any material increase in the amount of labor used. Whereas, the value of farm products used in the household varied from year to year depending principally on price changes and averaged $322.

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[1] East Central Illinois is the only area for which adequate records are available for 30 years, including the two World War periods.

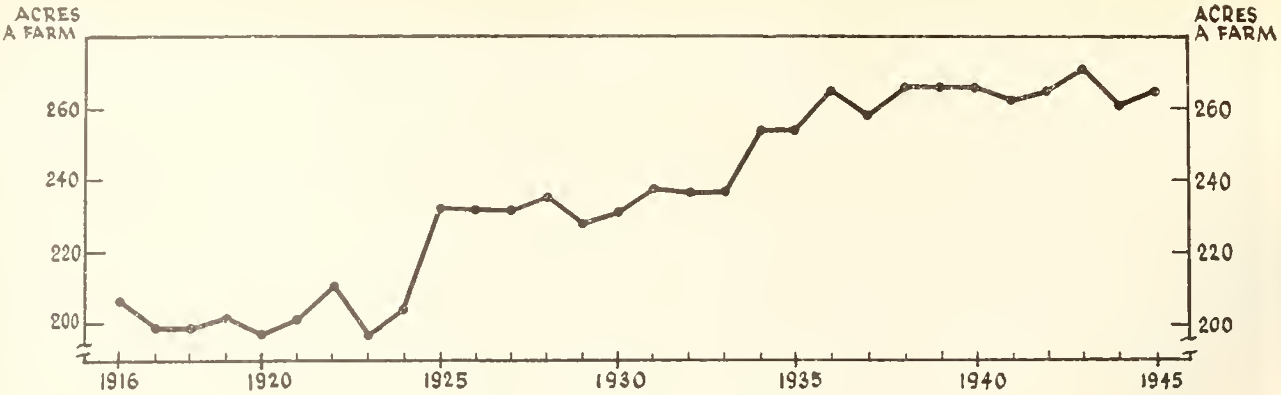

Chart 2. Variation in Size of Farms

Thirty years ago, 1916 to 1920, the accounting farms of East Central Illinois averaged 200 acres. More recently, 1941 to 1945, these farms averaged 265 acres — a 32 percent increase in size. The additional acres have added volume to the business and resulted in larger income per farm during World War II than during World War I even though prices of farm products were lower during World War II. This change in size is due primarily to the introduction of improved power, machinery, and equipment which makes it possible for the same labor to handle more land. The months of man labor used a farm has shown no material change.

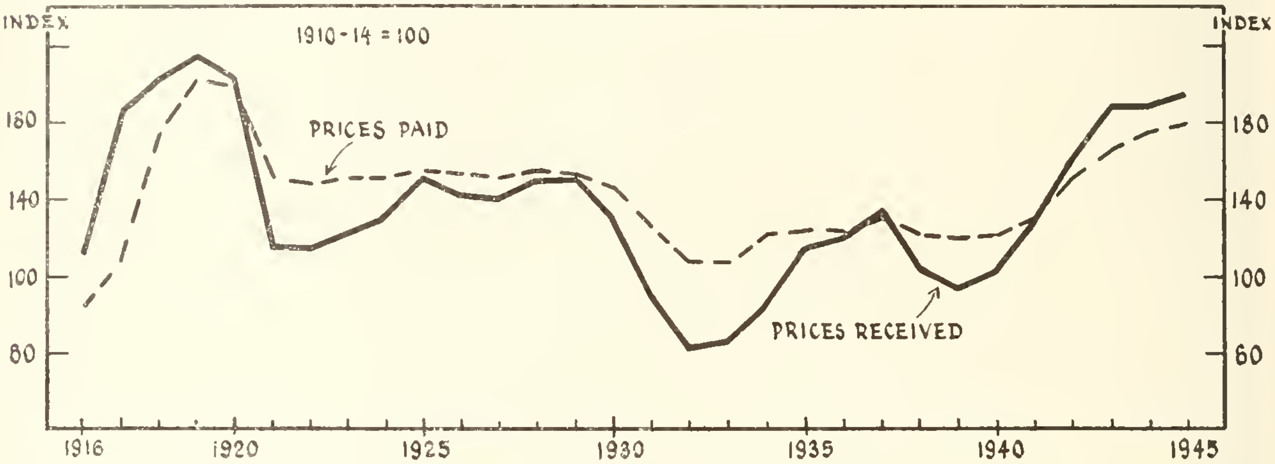

Chart 3. Prices Received by Illinois Farmers and Prices Paid by Farmers in the United States, 1916-1945

The only times during the past 30 years when prices received were appreciably above prices paid were during World Wars I and II. The 1937 year of favorable price relationships followed a drought which left farmers with small supplies of products to sell. Although prices received were lower during World War II than during World War I, net earnings an acre were at about the same level because of increased efficiency and higher production.

The price support program of 90 percent of parity or above for many farm products for two calendar years following the end of World War II will help cushion any decline that may take place in farm prices. Prices for things the farmer must buy, however, may be expected to remain relatively high for several years. Important factors affecting prices will be employment, national income and foreign demand for farm products.

Cooperative Extension Work in Agriculture and Home Economics: University of Illinois, College of Agriculture, and the United States Department of Agriculture cooperating. H. P. Rusk, *Director*. Acts approved by Congress May 8 and June 30, 1914.
(32409)

1945

COMPLETE COSTS AND FARM BUSINESS ANALYSIS ON 24 FARMS IN CHAMPAIGN AND PIATT COUNTIES, ILLINOIS

(Grain-Farming Section)

by R. H. Wilcox, J. R. Harris and A. C. Ruwe

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Livestock Production Costs		
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Department of Agricultural Economics
Agricultural Experiment Station
College of Agriculture, University of Illinois
Urbana, Illinois

August 1946

THE SITUATION

During 1945 complete farm cost accounting records were kept by 24 farmers in Champaign and Piatt Counties in cooperation with the Department of Agricultural Economics of the University of Illinois.

This report is a summary of the information obtained from the farms as expressed in terms of money and physical cost, physical production, income, profits, losses, and relative efficiency for each of the productive enterprises.

This is the twenty-sixth consecutive year that such records have been secured in this area of the state, and the thirty-third year of the continuous year of the continuous farm cost study in Illinois.[1]

The Area Studied

Champaign and Piatt Counties are located in the east-central section of the state. The land is level, practically all tillable, and, for the most part, relatively high in natural fertility. This section of the state is commonly called the cash-grain section because the sale of corn, oats, and soybeans is the source of most of the farm income. Livestock is a major enterprise on some farms, but on the average the income from livestock is smaller than that from grain crops.

Farms Included in the Study

Records show that farmers cooperating in the study obtained higher yields and had better managed farms than did the average farmers in the area. As a result, it is correct to assume that farmers in the study have lower costs than do many of their neighbors. However, it is believed that figures from these cost farms may safely be used for the major purposes of this study, which are to show variations in costs from farm to farm or year to year, and to point to the opportunity for greater efficiency of production through the use of improved farm practices.

The Year 1945

Agriculturally, the year 1945 was on the unfavorable side. Crops started well in early spring under the influence of warm weather in March and April. This good start was lost in the following prolonged period of cool and wet weather, which delayed planting of corn and soybeans. Rains terminated quite abruptly with the arrival of July. Hay cut before July was damaged by the rain, and some was ruined. Harvest of corn and soybeans was much delayed by weather and the condition of the crops.

1/ Crop costs for the first 25 years were published in Illinois Bulletin 467.

Table 1.--The Use of Land in Cost-Accounting Farms, Champaign and Piatt Counties, 1945

Use of land	Acres per farm 1944	Acres per farm 1945
Harvested crops	249.7	252.3
Rotation pasture	18.0	18.1
Bluegrass pasture	8.2	8.8
Farmstead	5.6	5.5
Idle land	2.0	2.0
Total acres in farm	283.5	286.7

The farms averaged 287 acres in size, or about 90 acres larger than the average farm in the two counties. Farms of different sizes were selected for the cost work in order to study the effect of size on farm operations and costs. The largest farm in 1945 contained 680 acres and the smallest, 79 acres.

Harvested crops were grown on 88 percent of the farm area and rotation pasture, most of which was red clover or a mixture of legumes and timothy, on 6.3 percent. The rest of the land was in permanent pasture or farmstead, and a small area was idle.

Table 2.--Crop Areas, Average Crop Yields, and Crop Costs on Cost Accounting Farms, Champaign and Piatt Counties

	Percent of cropland		Average yield per acre		Average net cost per bushel or ton		Variation in cost per bushel or ton in 1945	
Crop	1944	1945	1944	1945	1944	1945	High	Low
Corn	42.43	41.64	56.4	60.6	$ .382	$ .399	$ .523	$ .226
Oats (combined)	8.83	12.59	31.4	53.2	.494	.313	.556	.163
Oats (threshed)	1.52	1.37	40.4	51.6	.433	.374	.632	.229
Soybeans	37.75	38.39	24.8	22.9	.818	.966	1.476	.778
Winter wheat	1.69	--	24.5	--	.615	--	--	--
Alfalfa hay	1.29	2.00	2.5	2.8	11.20	12.80	22.59	9.78
Clover hay	1.94	2.33	1.5	1.8	13.09	14.15	30.06	7.63
Soybean hay	1.26	.20	1.5	1.6	21.45	18.89	26.10	12.68
Other crops	3.29	1.48	--	--	--	--	--	--

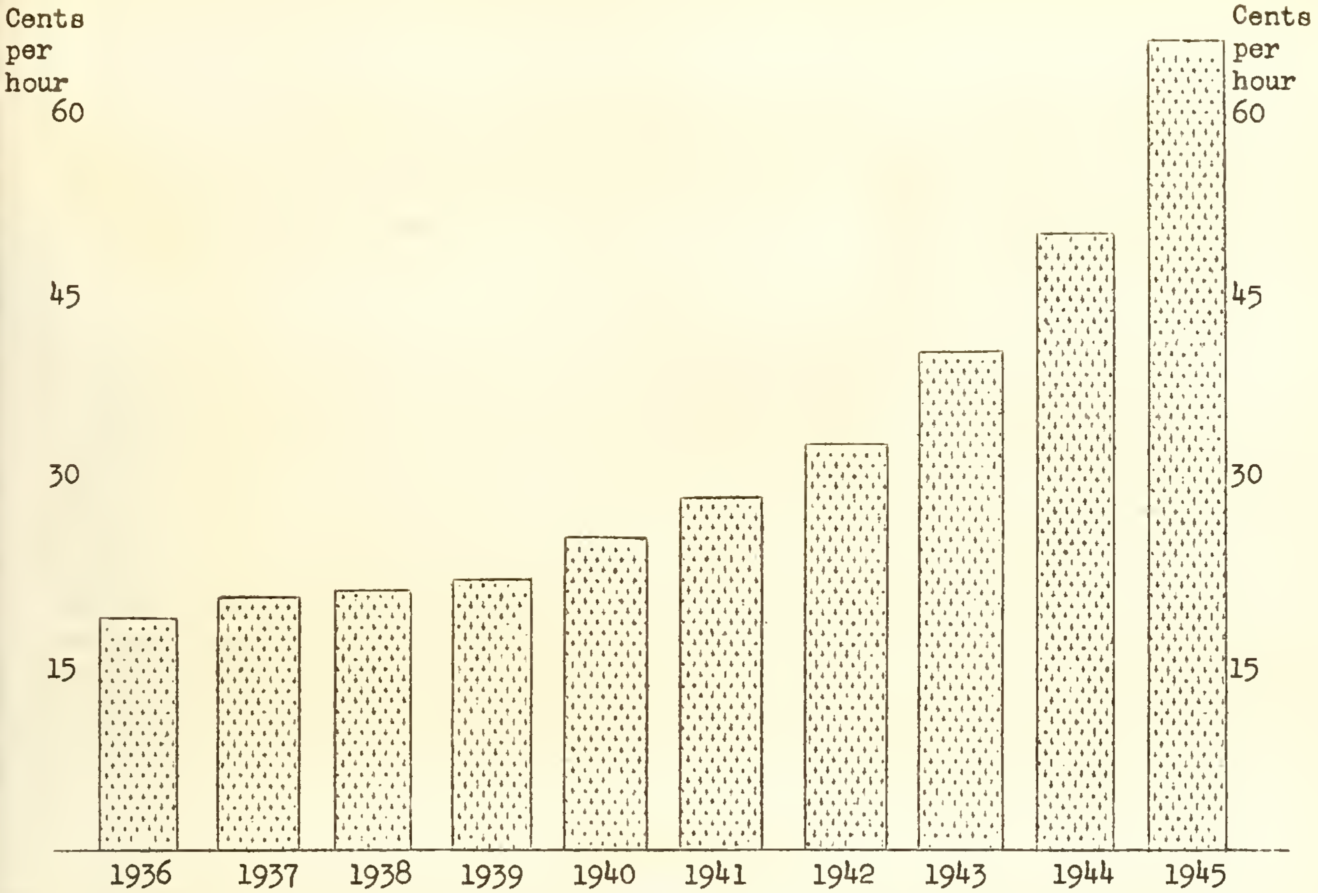

Fig. 1.--Hired Labor Cost Per Hour on Champaign and Piatt County Cost Farms, (not including hand-husking or detasseling corn)

The 1945 average hourly rate of farm laborers on the cost farms was 2.4 times that paid by these farmers in 1940 and nearly three times that in 1935 (see page 37).

Reasons for the substantial increase in the hourly wage in 1945 were:
(1) Only farm operators who paid good wages were able to hold their hired men.
(2) An increasing number of farmers who retained their laborers paid bonuses to the men who stayed on the farm for the entire crop season.

CROP PRODUCTION COSTS

When the costs of individual crops are compared with the prices of these same crops, wide differences appear. The costs of such crops as corn and soybeans are much below a fair market price for them. Good rotations are necessary in order to maintain the productivity of the land. The farmer must reckon the returns from the rotation as a whole; and the more profitable crops, such as corn and soybeans, must carry the less profitable ones necessary to a good rotation. Corn and soybeans, the main cash crops in the central corn belt, must help carry the oats, barley, and wheat crops and the legume crops grown for soil improvement. Also, no attempt was made to charge the crop for fertility removed from the soil, because no satisfactory method has been found for evaluating it.

Furthermore, labor is charged at the average rate. Most of the livestock enterprises did not earn this rate. Hence, the time spent on crops must yield a higher rate to make the business break even in a year like 1945 when livestock operations were, in general, not profitable.

The farmers in this study are doing a better-than-average job of developing rotations that result in continued high yields and low costs of production. For this reason their unit costs are lower and their earnings are higher than on the average farm of the area. The cost records, however, show ways in which farmers can economize on their operations and the degree to which profitable practices affect farm income.

Corn

The average acre cost of producing corn in 1945 was 12 percent above the 1944 cost. The increase in cost expressed in dollars and cents occurred about equally in the growing and in the harvesting costs. The 1945 acre cost of $24.72 included $16.37 for operating costs in growing and harvesting the crop, $1.54 for taxes, and $6.81 for the use of land. The average yield of corn was 60.6 bushels an acre, and the bushel cost was 39.9 cents. In the previous year, 1944, the yield was 56.4 bushels and the bushel cost, 38.2 cents. The higher bushel cost in 1945 in the face of a higher acre yield was due, in the main, to higher wages paid to labor and to the increased cost of maintaining tractors in good working condition. Because of an average farm price of $1.07 at harvest time, corn showed a profit of $40.66 an acre. In 1945 yields of corn on the 24 farms varied from a low of 47 bushels to a high of 86 bushels an acre, and costs varied from a low of 23 cents to a high of 52 cents a bushel.

Oats (combined)

Ninety percent of the oat acreage on the cost farms was harvested with the combine compared with 85 percent in 1944. The common practice was to windrow the oats and combine out of the windrow. The net cost of producing an acre of combined oats in 1945 was $16.64, after deducting the value of straw and pasture, compared to $15.51 in 1944. The yield varied from a low of 33 bushels an acre to a high of 85 bushels. Bushel costs varied from a low of 16 cents to a high of 56 cents. The average per-bushel cost for the 18 farms combining oats was 31 cents compared to 49 cents in 1944 and 43 cents in 1943. An acre yield of 53 bushels in 1945--over twenty bushels above both 1944 and 1943--was the reason for the low bushel cost.

Oats (threshed)

Three of the 21 farms producing oats harvested with the binder. This number was too small to warrant computing average costs. The cost of producing oats cut with the binder and threshed is shown in Table 9.

Soybeans

Soybeans were produced on 38.4 percent of the cropland in the 24 farms, or within 3.2 percent of the acreage in corn. The acreage in soybeans for grain has progressively increased since the early 1920's, reaching its high point on these farms in 1945. In the past 12 years, the increase in soybean acreage has occurred in spite of rising costs. The average net cost of producing an acre of soybeans after deducting credit for pasture was $22.14 in 1945; $20.33 in 1944; and $18.84 in 1943. The cost of producing a bushel of soybeans was 96.6 cents in 1945; 81.8 cents in 1944; and 74.6 cents in 1943. Soybean yields on these farms are gradually going down. There seems little doubt that this is caused by heavy cropping of the land and the failure to put fertility back into the soil either by means of livestock manure, commercial fertilizers, or by plowing under legume crops. Although for a good many years the soybeans crop has been second to corn as a high-profit crop, it will lose its place to alfalfa hay (a close third) unless the farmers reduce the proportion of their cropland in crops that draw as heavily on soil fertility as corn and soybeans do.

Alfalfa Hay

Alfalfa hay, for many years a profitable crop for the farmers in this area, was grown on only 2 percent of the cropland. Farmers know that with the limited amount of livestock in the area alfalfa hay cannot be grown profitably if produced in excess of local needs. Only about one-half of the farmers in the cost study produced alfalfa hay. In some instances the landlord does not permit the production of alfalfa but prefers clover hay because clover does not remain in one field as long as does alfalfa hay. Alfalfa hay, however, outyields all other hays in east-central Illinois and ranks next to corn and soybeans as a high-profit crop.

Clover Hay

The apparent inability to get a good yield of red clover hay on farms in east-central Illinois is largely responsible for the fact that only nine of the farms produced the crop. The average yield of 1.78 tons was well above yields on these cost-accounting farms in previous years. Very little clover seed was produced on the farms in 1945 compared with other years; this may be responsible, in part, for the better-than-average hay yields in 1945. Clover hay has not shown much profit on these farms because of low acre yields.

Soybean Hay

Soybean hay was cut on only five of the farms. The small acreage cut for hay was to be expected when the price of soybeans as grain was at the level which existed throughout 1945. On most of the farms soybean hay was obtained by cutting the borders of soybean grain fields or from sowing it as an emergency crop in low spots where regular field crops were drowned out in the spring.

Miscellaneous Crops

Farm 79 plowed up a small field of alfalfa after taking off the first cutting of hay and planted soybeans. The soybeans when harvested yielded a total of 49 bushels on 2.47 acres. As double cropping is unusual in this area, no attempt was made to arrive at unit costs for Farm 79.

CORN (HUSKED IN FIELD)

Table 3.--Cost of production (acre basis) on 24 farms (2,217.17 acres; 134,449 bushels)
Champaign-Piatt Counties--1945 (Farms ranked in order of net cost per bushel)

Items	Farm number								
	56	47	92	27	98	80	74	45	15
Acres in corn	129.12	51.57	185.17	59.83	130.18	28.96	75.74	164.36	98.27
Yield per acre (bu.)	85.58	71.75	71.46	70.20	60.07	69.06	61.54	64.40	67.16
Labor per acre									
Man hours	5.01	4.35	8.27	6.73	5.31	7.41	6.39	6.79	6.67
Horse hours	--	--	2.17	.27	.18	--	.11	--	--
Tractor hours	4.15	2.88	4.41	5.67	5.11	6.42	5.01	5.71	4.95
Truck miles	--	--	.69	--	2.49	--	--	.16	--
COST ITEMS PER ACRE									
Growing cost									
Man labor	$ 1.74	$ 1.41	$ 2.78	$ 2.83	$ 2.42	$ 2.02	$ 2.29	$ 2.52	$ 2.47
Horse labor	--	--	--	.10	--	--	--	--	--
Tractor use	1.18	1.62	1.60	1.83	1.85	2.81	1.64	2.23	2.51
Truck use	--	--	.03	--	.14	--	--	--	--
Machinery	.78	.92	.97	1.17	1.13	1.62	1.00	1.03	1.10
Seed	1.13	1.37	1.11	1.29	1.33	1.08	1.28	2.96	.90
Fertilizer	1.80	.86	.51	.67	.88	5.38	3.25	1.24	4.45
Hail insurance	--	.82	.20	.45	--	.14	--	--	--
Gen'l farm expense	1.53	2.55	2.07	2.24	1.80	2.27	1.57	3.46	2.49
Total growing cost	$ 8.16	$ 9.55	$ 9.27	$10.58	$ 9.55	$15.32	$11.03	$13.44	$13.92
Harvesting cost									
Man labor	$ 1.46	$ 1.53	$ 3.44	$ 1.76	$ 2.06	$ 2.19	$ 1.79	$ 1.65	$ 2.64
Horse labor	--	--	1.15	.10	.13	--	.08	--	--
Tractor use	1.06	1.58	1.05	1.31	2.00	1.55	1.10	1.27	1.78
Picker	1.38	.97	.52	1.13	.28	.96	.60	.57	1.11
Truck use	--	--	.02	--	.01	--	--	.01	--
Total harvesting cost	$ 3.90	$ 4.08	$ 6.18	$ 4.30	$ 4.48	$ 4.70	$ 3.57	$ 3.50	$ 5.53
Cost of growing and harvesting	$12.06	$13.63	$15.45	$14.88	$14.03	$20.02	$14.60	$16.94	$19.45
Taxes	1.67	1.58	.77	1.82	1.25	1.53	1.56	1.68	1.76
Interest on land	6.75	6.25	7.50	7.50	6.75	6.50	7.00	7.50	6.14
TOTAL COST	$20.48	$21.46	$23.72	$24.20	$22.03	$28.05	$23.16	$26.12	$27.35
INCOME PER ACRE									
Grain	$91.57	$76.77	$76.46	$75.11	$64.27	$73.90	$65.85	$68.91	$71.86
Pasture	1.15	--	.11	--	.22	2.12	--	.91	.97
TOTAL INCOME	$92.72	$76.77	$76.57	$75.11	$64.49	$76.02	$65.85	$69.82	$72.83
NET PROFIT PER ACRE	$72.24	$55.31	$52.85	$50.91	$42.46	$47.97	$42.69	$43.70	$45.48
NET COST PER BUSHEL	$ .226	$ .299	$ .330	$ .345	$ .363	$ .375	$ .376	$ .391	$ .393

CORN (HUSKED IN FIELD) (cont.)

Table 3.--Cost of production (acre basis) on 24 farms (2,217.17 acres; 134,449 bushels) Champaign-Piatt Counties--1945 (Farms ranked in order of net cost per bushel)

Items	Farm number								
	91	67	101	79	89	83	49	62	93
Acres in corn	68.31	75.17	104.68	29.09	88.11	62.38	129.69	69.87	177.61
Yield per acre (bu.)	65.96	49.89	50.79	68.13	60.35	49.49	49.44	51.61	66.36
Labor per acre									
Man hours	8.49	3.95	5.42	11.64	5.18	5.93	5.37	5.07	6.77
Horse hours	--	--	--	--	--	--	--	--	.02
Tractor hours	7.96	3.83	4.53	6.73	4.85	5.74	4.53	4.68	6.50
Truck miles	--	--	1.26	.69	.28	--	.38	--	.78
COST ITEMS PER ACRE									
Growing cost									
Man labor	$ 3.55	$ 2.00	$ 2.09	$ 3.36	$ 2.17	$ 2.73	$ 1.93	$ 2.21	$ 2.67
Horse labor	--	--	--	--	--	--	--	--	.02
Tractor use	3.26	2.70	1.65	2.09	3.14	2.74	2.00	2.20	2.66
Truck use	--	--	--	--	--	--	.02	--	--
Machinery	.71	.62	1.06	1.62	1.08	.80	.77	1.21	1.25
Seed	1.60	1.14	1.56	1.59	1.20	1.19	1.15	1.56	1.66
Fertilizer	2.23	2.39	.24	4.65	3.12	3.02	1.24	.81	4.36
Hail insurance	.71	.54	--	--	--	--	.52	.83	.50
Gen'l farm expense	2.20	1.70	1.29	1.21	2.00	1.71	2.27	2.94	2.25
Total growing cost	$14.26	$11.09	$ 7.89	$14.52	$12.71	$12.19	$ 9.90	$11.76	$15.37
Harvesting cost									
Man labor	$ 2.05	$ .54	$ 1.47	$ 4.10	$ 1.26	$ 1.18	$ 1.28	$ 1.09	$ 2.23
Horse labor	--	--	--	--	--	--	--	--	--
Tractor use	1.81	.67	1.16	1.85	1.69	1.24	1.72	.85	2.10
Picker	1.55	.40	1.11	.96	1.21	.88	1.58	1.39	1.44
Truck use	--	--	.11	.10	.03	--	--	--	.05
Total harvesting cost	$ 5.41	$ 1.61	$ 3.85	$ 7.01	$ 4.19	$ 3.30	$ 4.58	$ 3.33	$ 5.82
Cost of growing and harvesting	$19.67	$12.70	$11.74	$21.53	$16.90	$15.49	$14.48	$15.09	$21.19
Taxes	1.59	1.83	1.37	1.57	1.36	1.18	1.56	2.06	1.68
Interest on land	5.87	6.50	7.50	5.72	7.50	5.72	6.25	6.25	7.50
TOTAL COST	$27.13	$21.03	$20.61	$28.82	$25.76	$22.39	$22.29	$23.40	$30.37
INCOME PER ACRE									
Grain	$70.59	$53.38	$54.35	$72.89	$64.57	$52.95	$52.90	$55.22	$71.00
Pasture	.70	1.00	.11	1.10[1]	.20	.49	.13	--	--
TOTAL INCOME	$71.29	$54.38	$54.46	$73.99	$64.77	$53.44	$53.03	$55.22	$71.00
NET PROFIT PER ACRE	$44.16	$33.35	$33.85	$45.17	$39.01	$31.05	$30.74	$31.82	$40.63
NET COST PER BUSHEL	$ .401	$ .401	$ .404	$ .407	$ .424	$ .443	$ .448	$ .453	$ .458

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[1] Insurance payment

CORN (HUSKED IN FIELD) (cont.)

Table 3.--Cost of production (acre basis) on 24 farms (2,217.17 acres; 134,449 bushels)
Champaign-Piatt Counties--1945 (Farms ranked in order of net cost per bushel)

Items	Farm number						1945 average 24 farms	1944 average 24 farms	1943 average 25 farms
	95	96	73	90	97	100			
Acres in corn	102.27	105.42	17.46	118.38	66.67	78.86	92.38	93.27	81.54
Yield per acre (bu.)	48.89	48.04	54.41	53.84	56.37	46.83	60.64	56.42	66.53
Labor per acre									
Man hours	8.02	5.97	7.47	12.05	7.05	6.06	6.67	6.35	6.63
Horse hours	.53	1.16	--	12.98	--	--	.97	.93	1.55
Tractor hours	5.15	4.58	7.47	2.96	5.84	5.60	5.04	4.70	4.92
Truck miles	--	--	--	--	--	--	.38	.24	.31
COST ITEMS PER ACRE									
Growing cost									
Man labor	$ 2.84	$ 2.03	$ 2.30	$ 3.51	$ 2.95	$ 2.57	$ 2.48	$ 2.18	$ 1.78
Horse labor	.05	--	--	.44	--	--	.03	.07	.24
Tractor use	2.93	2.52	2.05	2.17	2.67	2.75	2.23	1.89	1.82
Truck use	--	--	--	--	--	--	.01	.01	.01
Machinery	1.06	.33	1.69	.75	1.50	.88	.98	.90	1.00
Seed	1.34	1.21	1.32	.74	1.39	1.41	1.40	1.22	1.10
Fertilizer	1.93	2.84	2.19	1.49	2.08	1.08	2.01	2.23	1.82
Hail insurance	.17	.19	--	.87	.70	.79	.29	.25	.26
Gen'l farm expense	2.01	.81	2.80	3.20	4.69	1.65	2.20	1.68	1.46
Total growing cost	$12.33	$ 9.93	$12.35	$13.17	$15.98	$11.13	$11.63	$10.43	$ 9.49
Harvesting cost									
Man labor	$ 1.98	$ 1.84	$ 2.57	$ 5.00	$ 1.73	$ 1.44	$ 2.05	$ 1.37	$ 1.24
Horse labor	.09	.87	--	3.05	--	--	.32	.37	.44
Tractor use	1.55	1.41	2.41	.02	1.17	1.31	1.37	.89	.87
Picker	.95	1.52	1.32	--	.93	1.81	.99	.87	1.03
Truck use	--	--	--	--	--	--	.01	--	.01
Total harvesting cost	$ 4.57	$ 5.64	$ 6.30	$ 8.07	$ 3.83	$ 4.56	$ 4.74	$ 3.50	$ 3.59
Cost of growing and harvesting	$16.90	$15.57	$18.65	$21.24	$19.81	$15.69	$16.37	$13.93	$13.08
Taxes	1.70	1.23	1.53	1.82	1.78	1.79	1.54	1.43	1.38
Interest on land	5.79	6.75	6.75	6.16	7.47	7.00	6.81	6.79	6.78
TOTAL COST	$24.39	$23.55	$26.93	$29.22	$29.06	$24.48	$24.72	$22.15	$21.24
INCOME PER ACRE									
Grain	$52.31	$51.40	$58.22	$57.60	$60.31	$50.11	$64.89	$56.42	$65.20
Pasture	.96	.09	.24	1.94	.23	--	.49	.61	.68
TOTAL INCOME	$53.27	$51.49	$58.46	$59.54	$60.54	$50.11	$65.38	$57.03	$65.88
NET PROFIT PER ACRE	$28.88	$27.94	$31.53	$30.32	$31.48	$25.63	$40.66	$34.88	$44.64
NET COST PER BUSHEL	$ .479	$ .488	$ .491	$ .507	$ .512	$ .523	$ .399	$ .382	$ .309

OATS (COMBINED)

Table 4.--Cost of production (acre basis) on 18 farms (762.04 acres; 40,544 bushels)
Champaign-Piatt Counties--1945 (Farms ranked in order of net cost per bushel)

Items	Farm number										
	73	93	92	83	56	47	96	15	80	97	98
Acres in oats	13.85	56.07	70.54	40.08	48.80	36.35	32.20	39.46	37.53	31.98	32.30
Yield per acre (bu.)	76.90	84.59	68.16	57.16	45.49	48.58	55.84	56.77	50.63	59.87	45.05
Labor per acre											
Man hours	2.24	3.26	3.12	2.57	2.23	1.43	4.13	3.10	4.48	2.35	2.91
Horse hours	--	--	--	--	--	--	.06	--	--	--	.22
Tractor hours	2.24	1.83	1.49	1.97	1.62	.94	2.76	1.63	2.74	1.87	1.93
Truck miles	--	.64	5.81	--	--	--	--	.76	1.73	--	3.59
COST ITEMS PER ACRE											
Growing cost											
Man labor	$ .57	$ .43	$ .59	$ .57	$ .31	$ .29	$ 1.32	$ .69	$ .98	$ .48	$ .72
Horse labor	--	--	--	--	--	--	.05	--	--	--	.16
Tractor use	.50	.37	.48	.62	.23	.33	1.82	.49	1.06	.43	.60
Truck use	--	--	--	--	--	--	--	--	--	--	.03
Machinery	.46	.54	.18	.70	.21	.25	.31	.44	.58	.73	.23
Seed	1.73	4.98	1.94	2.39	3.66	1.90	1.80	1.81	1.81	2.31	2.33
Fertilizer	1.25	2.07	.29	2.27	1.03	.49	1.63	2.13	1.29	1.19	.51
Insurance	--	--	--	--	--	--	--	--	--	--	--
Gen'l farm expense	.84	1.11	.86	.74	.70	.84	.62	1.18	1.37	1.63	.91
Total growing cost	$ 5.35	$ 9.50	$ 4.34	$ 7.29	$ 6.14	$ 4.10	$ 7.55	$ 6.74	$ 7.09	$ 6.77	$ 5.49
Harvesting cost											
Man labor	$ .90	$ 1.91	$ 1.78	$ 1.11	$ 1.14	$ .65	$ 1.36	$ 1.77	$ 1.55	$ 1.07	$ 1.21
Horse labor	--	--	--	--	--	--	--	--	--	--	--
Tractor use	.79	.89	.44	.79	.67	.36	.52	.98	.61	.77	.68
Truck use	--	.06	.46	--	--	--	--	.05	.25	--	.21
Combine	1.15	2.21	.62	.51	1.79	1.24	1.50	1.62	2.07	2.55	1.22
Total harvesting cost	$ 2.84	$ 5.07	$ 3.30	$ 2.41	$ 3.60	$ 2.25	$ 3.38	$ 4.42	$ 4.48	$ 4.39	$ 3.32
Cost of growing and harvesting	$ 8.19	$14.57	$ 7.64	$ 9.70	$ 9.74	$ 6.35	$10.93	$11.16	$11.57	$11.16	$ 8.81
Taxes	1.53	1.68	.77	1.18	1.66	1.58	1.23	1.77	1.53	1.78	1.25
Interest on land	6.75	7.50	7.50	6.00	6.75	6.25	6.75	7.00	6.50	7.25	6.75
TOTAL COST	$16.47	$23.75	$15.91	$16.88	$18.15	$14.18	$18.91	$19.93	$19.60	$20.19	$16.81
INCOME PER ACRE											
Grain	$47.68	$52.45	$42.26	$35.44	$28.20	$30.12	$34.62	$35.20	$31.39	$37.12	$27.93
Straw	.79	9.36	--	1.92	3.72	--	2.25	2.61	--	--	--
Pasture	3.13	--	.69	1.84	3.10	--	--	--	4.17	--	.85
TOTAL INCOME	$51.60	$61.81	$42.95	$39.20	$35.02	$30.12	$36.87	$37.81	$35.56	$37.12	$28.78
NET PROFIT PER ACRE	$35.13	$38.06	$27.04	$22.32	$16.87	$15.94	$17.96	$17.88	$15.96	$16.93	$11.97
NET COST PER BUSHEL	$ .163	$ .170	$ .223	$ .230	$ .249	$ .292	$ .298	$ .305	$ .305	$ .337	$ .354

OATS (COMBINED) (cont.)

Table 4.--Cost of production (acre basis) on 18 farms (762.04 acres; 40,544 bushels)
Champaign-Piatt Counties--1945 (Farms ranked in order of net cost per bushel)

Items	Farm number 45	62	89	91	101	49	79	1945 average 18 farms	1944 average 17 farms	1943 average 17 farms
Acres in oats	121.30	20.07	42.73	40.59	57.08	34.56	6.55	42.34	31.16	30.68
Yield per acre (bu.)	51.22	42.35	44.14	46.71	32.71	38.54	45.80	53.21	31.39	32.66
Labor per acre										
Man hours	2.52	1.92	2.46	6.60	2.32	5.04	14.50	3.16	2.93	2.80
Horse hours	--	--	.19	--	.69	--	--	.07	.15	.30
Tractor hours	1.58	1.05	2.27	3.38	1.72	3.69	10.53	2.04	2.11	1.86
Truck miles	2.68	--	.82	2.71	1.66	--	.15	1.60	.58	.87
COST ITEMS PER ACRE										
Growing cost										
Man labor	$ .47	$ .28	$ .68	$ .78	$ .45	$ 1.15	$ 7.07	$ .66	$ .62	$ .50
Horse labor	--	--	.14	--	.52	--	--	.06	.04	.08
Tractor use	.47	.19	.93	.62	.29	1.71	4.90	.65	.61	.54
Truck use	.03	--	--	--	--	--	.02	.01	.01	.01
Machinery	.38	.22	.27	.32	.27	.53	.56	.37	.52	.34
Seed	2.35	2.12	3.55	2.02	3.42	1.82	1.22	2.57	2.84	2.09
Fertilizer	.71	.46	.70	1.27	.14	.71	1.58	1.01	1.35	1.10
Insurance	--	--	--	--	--	--	--	--	--	.06
Gen'l farm expense	1.49	1.12	1.06	1.71	.55	2.17	1.50	1.13	.84	.70
Total growing cost	$ 5.90	$ 4.39	$ 7.33	$ 6.72	$ 5.64	$ 8.09	$16.85	$ 6.46	$ 6.83	$ 5.42
Harvesting cost										
Man labor	$ 1.10	$ .98	$ .95	$ 3.57	$ 1.08	$ 1.62	$ 2.12	$ 1.42	$ 1.00	$ .76
Horse labor	--	--	--	--	--	--	--	--	.06	.03
Tractor use	.45	.49	1.52	1.16	.49	1.11	.90	.71	.59	.50
Truck use	.17	--	.05	.29	.13	--	--	.13	.03	.05
Combine	1.50	1.20	1.50	1.19	1.58	2.36	2.17	1.51	1.33	1.17
Total harvesting cost	$ 3.22	$ 2.67	$ 4.02	$ 6.21	$ 3.28	$ 5.09	$ 5.19	$ 3.77	$ 3.01	$ 2.51
Cost of growing and harvesting	$ 9.12	$ 7.06	$11.35	$12.93	$ 8.92	$13.18	$22.04	$10.23	$ 9.84	$ 7.93
Taxes	1.68	2.06	1.37	1.59	1.37	1.56	1.57	1.49	1.93	1.39
Interest on land	7.50	6.25	7.50	6.75	7.50	6.25	6.50	7.01	6.37	6.81
TOTAL COST	$18.30	$15.37	$20.22	$21.27	$17.79	$20.99	$30.11	$18.73	$18.14	$16.13
INCOME PER ACRE										
Grain	$31.76	$45.31	$27.37	$28.96	$20.28	$23.91	$28.39	$33.49	$22.28	$21.56
Straw	--	--	1.44	--	--	--	1.26	1.37	.73	1.09
Pasture	--	--	.41	--	.19	--	3.37	.72	1.90	1.10
TOTAL INCOME	$31.76	$45.31	$29.22	$28.96	$20.47	$23.91	$33.02	$35.58	$24.91	$23.75
NET PROFIT PER ACRE	$13.46	$29.94	$ 9.00	$ 7.69	$ 2.68	$ 2.92	$ 2.91	$16.85	$ 6.77	$ 7.62
NET COST PER BUSHEL	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

SOYBEANS

Table 5.--Cost of production (acre basis) on 24 farms (2,323.82 acres; 53,255 bushels) Champaign-Piatt Counties--1945 (Farms ranked in order of net cost per bushel)

Items	Farm number								
	73	93	56	74	92	62	83	47	89
Acres in soybeans	19.26	197.32	161.51	140.47	246.38	58.35	51.01	58.37	64.33
Yield per acre (bu.)	29.62	30.48	23.70	27.93	25.25	22.79	21.27	23.51	23.57
Labor per acre									
Man hours	4.98	4.36	3.81	4.99	4.99	2.19	3.33	4.11	3.45
Horse hours	--	--	--	--	--	--	--	--	--
Tractor hours	4.98	2.51	3.24	3.63	3.09	1.67	2.91	3.53	2.90
Truck miles	--	1.41	.84	.85	4.57	.69	.35	--	1.46
COST ITEMS PER ACRE									
Growing cost									
Man labor	$ 1.78	$ 2.27	$ 1.66	$ 2.63	$ 2.61	$ .67	$ 1.94	$ 1.96	$ 1.74
Horse labor	--	--	--	--	--	--	--	--	--
Tractor use	1.55	1.57	1.36	2.14	1.58	.65	1.80	2.24	2.47
Truck use	--	.01	--	--	.03	--	--	--	--
Machinery	1.12	.80	.70	.98	.78	.85	.77	1.08	.95
Seed	4.97	3.30	3.84	3.20	2.96	3.60	3.94	2.48	2.04
Fertilizer	1.25	2.07	1.03	.75	.29	.46	1.29	.49	.70
Hail insurance	--	.62	--	--	.20	.83	--	.82	--
Gen'l farm expense	1.88	1.48	1.19	1.22	1.26	1.22	.96	2.41	1.49
Total growing cost	$12.55	$12.12	$ 9.78	$10.92	$ 9.71	$ 8.28	$10.70	$11.48	$ 9.39
Harvesting cost									
Man labor	$ 1.51	$ .86	$ .68	$ .86	$ 1.16	$ .74	$ .23	$ .76	$ 1.05
Horse labor	--	--	--	--	--	--	--	--	--
Tractor use	1.41	.38	.33	.30	.31	.40	.24	.44	.56
Truck use	--	.09	.07	.14	.33	.07	.03	--	.18
Combine	1.15	1.16	.41	2.04	.62	1.20	.51	1.22	2.32
Total harvesting cost	$ 4.07	$ 2.49	$ 1.49	$ 3.34	$ 2.42	$ 2.41	$ 1.01	$ 2.42	$ 4.11
Cost of growing and harvesting	$16.62	$14.61	$11.27	$14.26	$12.13	$10.69	$11.71	$13.90	$13.50
Taxes	1.53	1.68	1.66	1.56	.77	2.06	1.18	1.58	1.37
Interest on land	6.75	7.50	6.75	7.00	7.50	6.25	5.20	6.25	7.50
TOTAL COST	$24.90	$23.79	$19.68	$22.82	$20.40	$19.00	$18.09	$21.73	$22.37
INCOME PER ACRE									
Grain	$60.46	$62.19	$48.35	$56.99	$51.52	$46.49	$43.39	$47.94	$48.08
Pasture	1.85	--	1.04	.28	--	--	--	--	.31
TOTAL INCOME	$62.31	$62.19	$49.39	$57.27	$51.52	$46.49	$43.39	$47.94	$48.39
NET PROFIT PER ACRE	$37.41	$38.40	$29.71	$34.45	$31.12	$27.49	$25.30	$26.21	$26.02
NET COST PER BUSHEL	$ .778	$ .780	$ .787	$ .807	$ .808	$ .833	$ .851	$ .924	$ .936

SOYBEANS (cont.)

Table 5.--Cost of production (acre basis) on 24 farms (2,323.82 acres; 53,255 bushels)
Champaign-Piatt Counties--1945 (Farms ranked in order of net cost per bushel)

Items	Farm number								
	101	45	67	91	96	15	27	80	98
Acres in soybeans	57.56	220.16	78.99	84.24	108.70	81.68	76.09	45.43	131.54
Yield per acre (bu.)	23.63	24.69	21.91	21.17	19.93	26.13	22.72	26.41	17.41
Labor per acre									
Man hours	6.78	4.02	3.14	4.75	2.76	4.51	3.78	5.61	3.63
Horse hours	--	--	--	--	--	--	--	--	--
Tractor hours	3.94	2.45	2.93	3.60	2.19	3.64	2.87	5.05	3.00
Truck miles	3.90	3.19	.56	2.71	--	2.14	.87	1.21	3.66
COST ITEMS PER ACRE									
Growing cost									
Man labor	$ 2.44	$ 1.41	$ 1.43	$ 1.91	$ 1.22	$ 2.53	$ 2.05	$ 2.32	$ 1.86
Horse labor	--	--	--	--	--	--	--	--	--
Tractor use	1.59	1.07	1.89	1.83	1.69	2.46	1.34	2.71	1.28
Truck use	--	--	--	--	--	--	--	--	.09
Machinery	1.04	.29	.62	.64	.30	1.03	.78	1.71	.81
Seed	1.92	4.82	4.00	2.41	3.65	4.86	4.55	3.27	3.69
Fertilizer	.14	.69	1.37	1.85	1.62	3.38	.38	4.87	.51
Hail insurance	--	.31	.53	.81	.17	--	.52	.29	--
Gen'l farm expense	1.61	2.32	1.37	1.23	.42	1.72	1.21	1.64	1.04
Total growing cost	$ 8.74	$10.91	$11.21	$10.68	$ 9.07	$15.98	$10.83	$16.81	$ 9.28
Harvesting cost									
Man labor	$ 1.94	$ 1.16	$ .62	$ 1.22	$ .85	$ 1.04	$ .90	$ .83	$ .50
Horse labor	--	--	--	--	--	--	--	--	--
Tractor use	1.14	.39	.75	.43	.36	.71	.38	.62	.33
Truck use	.21	.25	.09	.29	--	.14	.21	.18	.14
Combine	1.22	1.43	1.05	1.19	2.71	1.27	2.61	2.07	1.22
Total harvesting cost	$ 4.51	$ 3.23	$ 2.51	$ 3.13	$ 3.92	$ 3.16	$ 4.10	$ 3.70	$ 2.19
Cost of growing and harvesting	$13.25	$14.14	$13.72	$13.81	$12.99	$19.14	$14.93	$20.51	$11.47
Taxes	1.37	1.68	1.83	1.59	1.23	1.77	1.82	1.53	1.25
Interest on land	7.50	7.50	6.50	6.02	6.75	6.63	7.50	6.50	6.75
TOTAL COST	$22.12	$23.32	$22.05	$21.42	$20.97	$27.54	$24.25	$28.54	$19.47
INCOME PER ACRE									
Grain	$48.20	$50.37	$45.16	$43.20	$40.65	$53.30	$46.36	$53.89	$35.52
Pasture	--	--	.83	--	--	--	--	--	--
TOTAL INCOME	$48.20	$50.37	$45.99	$43.20	$40.65	$53.30	$46.36	$53.89	$35.52
NET PROFIT PER ACRE	$26.08	$27.05	$23.94	$21.78	$19.68	$25.76	$22.11	$25.35	$16.05
NET COST PER BUSHEL	$ .936	$ .944	$ .969	$ 1.012	$ 1.053	$ 1.054	$ 1.067	$ 1.080	$ 1.118

SOYBEANS (cont.)

Table 5.--Cost of production (acre basis) on 24 farms (2,323.82 acres; 53,255 bushels)
Champaign-Piatt Counties--1945 (Farms ranked in order of net cost per bushel)

Items	Farm number 97	100	79	49	90	95	1945 average 24 farms	1944 average 24 farms	1943 average 25 farms
Acres in soybeans	25.54	67.37	22.38	114.42	60.25	152.47	96.83	94.25	99.23
Yield per acre (bu.)	23.14	20.23	18.14	15.45	18.72	15.12	22.92	24.84	25.26
Labor per acre									
Man hours	3.97	4.86	6.61	3.84	5.61	3.49	4.20	3.76	4.07
Horse hours	--	--	--	--	.10	.12	--	.01	.06
Tractor hours	2.63	3.41	5.59	2.13	4.46	2.50	3.02	2.79	2.91
Truck miles	--	.73	.31	--	--	.62	1.70	1.13	1.46
COST ITEMS PER ACRE									
Growing cost									
Man labor	$ 1.69	$ 2.38	$ 3.02	$ 1.68	$ 3.16	$ 1.48	$ 1.97	$ 1.47	$ 1.28
Horse labor	--	--	--	--	--	.01	--	--	.01
Tractor use	1.33	1.96	2.65	1.34	3.01	1.83	1.68	1.42	1.30
Truck use	--	--	.04	--	--	--	.01	.01	.01
Machinery	1.55	.88	1.62	.65	.67	.64	.76	.78	.67
Seed	4.22	4.65	4.16	4.07	5.45	4.71	3.76	3.81	3.34
Fertilizer	1.19	.62	1.58	.71	.85	1.11	1.09	1.00	.89
Hail insurance	.70	.74	--	.52	.87	.46	.33	.32	.33
Gen'l farm expense	2.77	1.45	.68	1.60	1.50	.70	1.39	1.06	.91
Total growing cost	$13.45	$12.68	$13.75	$10.57	$15.51	$10.94	$10.99	$ 9.87	$ 8.74
Harvesting cost									
Man labor	$ .93	$ 1.08	$ 1.14	$ .62	$ 1.32	$ 1.09	$ .94	$ .73	$ .62
Horse labor	--	--	--	--	.03	.03	--	--	.02
Tractor use	.36	.61	.51	.31	.50	.44	.44	.37	.36
Truck use	--	.07	--	--	--	.14	.14	.10	.10
Combine	2.15	2.28	2.07	1.20	2.73	2.43	1.47	1.32	1.15
Total harvesting cost	$ 3.44	$ 4.04	$ 3.72	$ 2.13	$ 4.58	$ 4.13	$ 2.99	$ 2.52	$ 2.25
Cost of growing and harvesting	$16.89	$16.72	$17.47	$12.70	$20.09	$15.07	$13.98	$12.39	$10.99
Taxes	1.77	1.79	1.57	1.57	1.82	1.69	1.52	1.43	1.36
Interest on land	7.41	7.00	5.00	6.25	6.13	5.55	6.82	6.83	6.74
TOTAL COST	$26.07	$25.51	$24.04	$20.52	$28.04	$22.31	$22.32	$20.65	$19.09
INCOME PER ACRE									
Grain	$47.16	$41.27	$36.97	$31.52	$38.19	$30.84	$46.76	$50.76	$45.53
Pasture	--	--	--	--	1.51	--	.18	.32	.25
TOTAL INCOME	$47.16	$41.27	$36.97	$31.52	$39.70	$30.84	$46.94	$51.08	$45.78
NET PROFIT PER ACRE	$21.09	$15.76	$12.93	$11.00	$11.66	$ 8.53	$24.62	$30.43	$26.69
NET COST PER BUSHEL	$ 1.127	$ 1.261	$ 1.326	$ 1.328	$ 1.417	$ 1.476	$ .966	$ .818	$ .746

ALFALFA HAY

Table 6.--Cost of production (acre basis) on 13 farms (120.86 acres; 345 tons)
Champaign-Piatt Counties--1945 (Farms ranked in order of net cost per ton)

Items	Farm number							
	91	83	80	93	49	15	56	73
Acres in alfalfa	13.09	3.16	7.17	19.32	12.79	10.79	8.15	9.77
Yield per acre (tons)	3.30	2.59	4.18	3.00	2.24	2.87	2.82	2.14
Pasture days	--	39.56	--	--	--	--	57.30	--
Labor per acre								
Man hours	11.76	9.26	20.22	12.41	7.31	10.06	12.58	7.73
Horse hours	--	--	--	.14	.18	--	.37	.51
Tractor hours	7.10	3.88	10.18	5.45	2.89	4.40	6.01	3.33
Truck miles	3.44	.32	--	.61	--	--	--	--
COST ITEMS PER ACRE								
Man labor	$ 8.60	$ 6.39	$13.31	$ 8.69	$ 5.74	$ 8.95	$ 8.66	$ 5.45
Horse labor	--	--	--	.09	.13	--	.29	.38
Tractor use	4.35	2.87	5.75	3.40	2.66	4.07	3.67	2.04
Truck use	.37	.03	--	.04	--	--	--	--
Machinery	3.55	2.21	5.61	2.27	1.15	2.67	4.42	3.59
Pickup baler	3.79	1.17	5.02	3.93	5.20	5.86	3.36	3.29
Seed	--	6.20	4.03	3.03	1.63	2.27	2.49	2.27
Fertilizer	.64	.64	.65	1.03	.35	1.06	.51	.62
Gen'l farm expense	2.69	2.66	6.20	4.12	3.00	3.83	3.75	3.19
TOTAL OPERATING COST	$23.99	$22.17	$40.57	$26.60	$19.86	$28.71	$27.15	$20.83
Taxes	1.59	1.18	1.53	1.68	1.57	1.77	1.66	1.53
Interest on land	6.75	6.00	6.50	7.50	6.25	7.00	6.75	6.75
TOTAL COST	$32.33	$29.35	$48.60	$35.78	$27.68	$37.48	$35.56	$29.11
INCOME PER ACRE								
Hay	$70.03	$57.99	$78.45	$69.04	$51.66	$66.08	$60.61	$45.44
Pasture	--	3.95	--	--	--	1.41	5.72	--
TOTAL INCOME	$70.03	$61.94	$78.45	$69.04	$51.66	$67.49	$66.33	$45.44
NET PROFIT PER ACRE	$37.70	$32.59	$29.85	$33.26	$23.98	$30.01	$30.77	$16.33
NET COST PER TON	$ 9.78	$11.31	$11.62	$11.92	$12.33	$12.55	$12.60	$13.61

ALFALFA HAY (cont.)

Table 6.--Cost of production (acre basis) on 13 farms (120.86 acres; 345 tons)
Champaign-Piatt Counties--1945 (Farms ranked in order of net cost per ton)

Items	Farm number					1945 average	1944 average	1943 average
	96	45	90	97	62	13 farms	12 farms	13 farms
Acres in alfalfa	14.91	4.15	9.70	2.91	4.95	9.30	5.86	7.82
Yield per acre (tons)	3.29	3.13	2.53	1.55	2.12	2.85	2.47	2.05
Pasture days	--	--	--	--	--	4.90	9.17	--
Labor per acre								
Man hours	14.76	19.10	12.16	10.57	16.01	12.21	12.59	12.63
Horse hours	.45	--	.72	--	--	.22	.79	3.10
Tractor hours	5.32	7.11	4.54	3.44	9.24	5.44	5.53	3.92
Truck miles	--	--	--	--	--	.48	.33	1.69
COST ITEMS PER ACRE								
Man labor	$11.84	$11.53	$12.43	$ 7.91	$10.40	$ 9.18	$ 6.90	$ 5.91
Horse labor	.34	--	.19	--	--	.13	.55	1.19
Tractor use	5.09	4.31	5.98	2.48	6.04	4.05	2.74	1.90
Truck use	--	--	--	--	--	.05	.02	.10
Machinery	1.89	2.91	1.07	1.83	11.34	3.01	2.51	1.94
Pickup baler	9.36	5.63	7.95	2.53	--	4.98	2.59	2.45
Seed	5.88	2.37	.93	1.75	2.30	2.63	1.73	.83
Fertilizer	.81	.35	.42	.59	.23	.68	.68	.57
Gen'l farm expense	2.22	10.55	3.25	7.36	9.29	4.01	2.80	2.83
TOTAL OPERATING COST	$37.43	$37.65	$32.22	$24.45	$39.60	$28.72	$20.52	$17.72
Taxes	1.23	1.67	1.82	1.78	2.06	1.61	1.42	1.46
Interest on land	6.75	7.50	6.25	7.25	6.25	6.78	6.65	6.55
TOTAL COST	$45.41	$46.82	$40.29	$33.48	$47.91	$37.11	$28.59	$25.73
INCOME PER ACRE								
Hay	$55.96	$72.05	$58.09	$35.57	$41.36	$60.51	$58.24	$40.77
Pasture	--	--	--	--	--	.62	.92	--
TOTAL INCOME	$55.96	$72.05	$58.09	$35.57	$41.36	$61.13	$59.16	$40.77
NET PROFIT PER ACRE	$10.55	$25.23	$17.80	$ 2.09	$-6.55	$24.02	$30.57	$15.04
NET COST PER TON	$13.82	$14.95	$15.95	$21.65	$22.59	$12.80	$11.20	$12.54

CLOVER HAY

Table 7.--Cost of production (acre basis) on 9 farms (140.81 acres; 250.55 tons)
Champaign-Piatt Counties---1945 (Farms ranked in order of net cost per ton)

Items	Farm number					
	83	47	92	98	49	97
Acres in clover hay	2.56	26.73	19.92	15.48	17.99	6.82
Yield per acre (tons)	1.17	1.87	1.67	2.39	2.10	2.57
Labor per acre						
Man hours	6.15	2.02	5.97	8.33	10.67	9.13
Horse hours	--	--	.35	.65	.22	--
Tractor hours	3.81	.91	1.66	1.74	2.58	3.26
Truck miles	.39	--	2.66	1.94	.67	--
COST ITEMS PER ACRE						
Man labor	$ 4.05	$ 1.62	$ 5.25	$ 7.08	$ 7.36	$ 7.50
Horse labor	--	--	.16	.26	.17	--
Tractor use	2.67	.80	1.32	1.50	2.02	2.46
Machinery	.79	.77	1.88	1.35	.69	1.57
Pickup baler	--	1.54	3.77	6.40	4.24	7.17
Combine	.51	--	--	--	--	--
Seed	2.31	1.68	1.18	2.88	2.36	3.30
Fertilizer	.65	.24	.15	.25	.35	.60
Gen'l farm expense	1.76	.94	1.48	2.58	4.44	6.34
TOTAL OPERATING COST	$12.74	$ 7.59	$15.19	$22.30	$21.63	$28.94
Taxes	1.18	1.58	.77	1.25	1.57	1.77
Interest	6.00	6.25	7.50	6.75	6.25	7.25
TOTAL COST	$19.92	$15.42	$23.46	$30.30	$29.45	$37.96
INCOME PER ACRE						
Hay	$21.10	$22.41	$35.89	$51.39	$45.19	$55.17
Pasture	3.95	--	3.47	--	--	--
Seed	7.03	--	--	--	--	--
TOTAL INCOME	$32.08	$22.41	$39.36	$51.39	$45.19	$55.17
NET PROFIT PER ACRE	$12.16	$ 6.99	$15.90	$21.09	$15.74	$17.21
NET COST PER TON	$ 7.63	$ 8.25	$11.97	$12.68	$14.01	$14.79

CLOVER HAY (cont.)

Table 7.--Cost of production (acre basis) on 9 farms (140.81 acres; 250.55 tons)
Champaign-Piatt Counties--1945 (Farms ranked in order of net cost per ton)

Items	Farm number			1945 average 9 farms	1944 average 7 farms	1943 average 9 farms
	100	45	95			
Acres in clover hay	4.29	42.42	4.60	15.65	16.21	18.20
Yield per acre (tons)	1.17	1.41	1.52	1.78	1.54	.96
Labor per acre						
Man hours	6.06	7.77	23.42	7.35	8,32	5.23
Horse hours	.35	--	27.93	1.07	.62	.51
Tractor hours	1.22	2.16	1.52	1.89	3.85	1.79
Truck miles	--	.21	--	.75	.04	1.12
COST ITEMS PER ACRE						
Man labor	$ 3.75	$ 4.87	$13.94	$ 5.25	$ 5.70	$ 2.54
Horse labor	.26	--	15.79	.60	.46	.21
Tractor use	.73	1.40	1.01	1.41	3.24	1.16
Machinery	1.14	1.41	.24	1.20	1.44	.94
Pickup baler	--	2.54	--	3.18	2.69	1.18
Combine	1.48	1.20	--	.41	1.63	.20
Seed	1.64	3.10	--	2.29	1.78	.97
Fertilizer	.31	.35	.55	.31	.70	.39
Gen'l farm expense	1.41	4.59	6.27	3.21	2.23	1.21
TOTAL OPERATING COST	$10.72	$19.46	$37.80	$17.86	$19.87	$ 8.80
Taxes	1.79	1.67	1.70	1.47	1.53	1.36
Interest	7.00	7.50	6.25	6.93	6.96	7.12
TOTAL COST	$19.51	$28.63	$45.75	$26.26	$28.36	$17.28
INCOME PER ACRE						
Hay	$23.78	$30.41	$27.39	$34.59	$34.78	$16.75
Pasture	--	--	--	.57	.05	1.53
Seed	--	1.27	--	.51	8.17	.44
TOTAL INCOME	$23.78	$31.68	$27.39	$35.67	$43.00	$18.72
NET PROFIT PER ACRE	$ 4.27	$ 3.05	$-18.36	$ 9.41	$14.64	$ 1.44
NET COST PER TON	$16.74	$19.34	$30.06	$14.15	$13.09	$15.91

SOYBEAN HAY

Table 8.--Cost of production (acre basis) on 5 farms (10.45 acres; 17 tons)
Champaign-Piatt Counties--1945 (Farms ranked in order of net cost per ton)

Items	Farm number 83	100	56	93	67	19441/ average 18 farms	1943 average 18 farms
Acres in soybean hay	1.14	1.70	1.14	2.06	4.41	4.20	3.26
Yield per acre (ton)	3.51	2.35	1.75	1.46	.91	1.47	1.82
Labor per acre							
Man hours	18.64	19.71	14.91	8.50	2.95	12.66	16.67
Horse hours	--	1.18	--	10.68	--	2.00	7.27
Tractor hours	7.68	8.09	7.02	2.06	2.78	4.69	4.31
Truck miles	--	--	--	--	.68	.56	.82
COST ITEMS PER ACRE							
Growing cost							
Man labor	$ 1.87	$ 2.33	$ 1.62	$ 2.30	$ 1.34	$ 1.33	$ 1.22
Horse labor	--	--	--	--	--	--	.01
Tractor use	1.73	1.81	1.33	1.65	1.79	1.33	1.21
Truck use	--	--	--	--	--	.01	.01
Machinery	.45	.73	.70	.80	.68	.67	.64
Seed	3.94	4.65	--	3.30	4.00	3.70	3.15
Fertilizer	.64	.31	.52	1.04	.68	1.22	1.21
Gen'l farm expense	5.35	1.11	4.67	2.89	1.30	3.44	3.59
Total growing cost	$13.98	$10.94	$ 8.84	$11.98	$ 9.79	$11.70	$11.04
Harvesting cost							
Man labor	$12.00	$10.30	$ 7.80	$ 3.89	$ .62	$ 5.96	$ 6.16
Horse labor	--	.88	--	9.40	--	1.65	3.39
Tractor use	4.21	3.41	1.51	--	.76	1.59	.92
Truck use	--	--	--	--	.09	.03	.04
Machinery	7.12	.34	.74	2.40	4.07	2.45	.79
Total harvesting cost	$23.33	$14.93	$10.05	$15.69	$ 5.54	$11.68	$11.30
Cost of growing and harvesting	$37.31	$25.87	$18.89	$27.67	$15.33	$23.38	$22.34
Taxes	1.19	1.79	1.67	1.68	1.84	1.48	1.41
Interest on land	6.00	7.00	6.75	7.50	6.50	6.71	6.42
TOTAL COST	$44.50	$34.66	$27.31	$36.85	$23.67	$31.57	$30.17
INCOME PER ACRE							
Hay	$68.42	$37.64	$28.07	$28.40	$17.69	$29.37	$22.17
NET PROFIT PER ACRE	$23.92	$ 2.98	$ .76	$-8.45	$-5.98	$-2.20	$-8.00
NET COST PER TON	$12.68	$14.73	$15.57	$25.31	$26.10	$21.45	$16.60

1/ There were not enough fields of soybean hay in 1945 to warrant computing average costs

MISCELLANEOUS CROPS

Table 9.--Cost of Production (acre basis) Champaign-Piatt Counties---1945

Items	Threshed oats[1]			Mixed hay		
	74	90	95	73	15	90
Acres in crop	32.31	19.80	31.00	1.50	29.08	49.22
Yield per acre (bu. or ton)	75.43	44.55	31.26	2.00	1.87	1.37
Labor per acre						
Man hours	8.26	10.51	6.94	4.67	4.11	7.28
Horse hours	3.47	4.44	2.90	.67	--	1.24
Tractor hours	2.45	1.92	2.50	1.33	2.27	1.61
Truck miles	.03	.35	--	--	--	--
COST ITEMS PER ACRE						
Growing cost						
Man labor	$ .83	$ 1.04	$ .77	$ --	$ --	$ .69
Horse labor	--	.27	--	--	--	.25
Tractor use	.54	.66	.99	--	--	.16
Machinery	.43	.87	.22	--	.03	.07
Seed	1.74	4.88	1.62	3.40	2.17	1.54
Fertilizer	2.69	.85	1.11	.62	9.51	.26
Gen'l farm expense	2.03	2.81	1.52	--	1.56	1.93
Total growing cost	$ 8.26	$11.38	$ 6.23	$ 4.02	$13.27	$ 4.90
Harvesting cost						
Man labor	$ 4.51	$ 6.19	$ 3.70	$ 3.08	$ 3.89	$ 4.95
Horse labor	2.60	.92	1.95	.50	--	.11
Tractor use	.79	.75	1.10	.76	2.24	1.29
Truck use	--	.03	--	--	--	--
Machinery	.44	.38	.69	1.79	1.27	.52
Thresher, combine or baler	1.44	.79	.71	--	3.81	3.41
Total harvesting cost	$ 9.78	$ 9.06	$ 8.15	$ 6.13	$11.21	$10.28
Cost of growing and harvesting	$18.04	$20.44	$14.38	$10.15	$24.48	$15.18
Taxes	1.56	1.82	1.70	1.53	1.77	1.83
Interest on land	7.00	6.13	6.25	6.75	7.00	6.09
TOTAL COST	$26.60	$28.39	$22.33	$18.43	$33.25	$23.10
INCOME PER ACRE						
Grain or seed	$46.76	$27.62	$19.38	$34.00	$37.10	$28.11
Hay	--	--	--	--	--	--
Straw	8.34	6.61	2.57	--	--	--
Pasture	.98	--	--	--	6.32	.41
TOTAL INCOME	$56.08	$34.23	$21.95	$34.00	$43.42	$28.52
NET PROFIT PER ACRE	$29.48	$ 5.84	$ -.38	$15.57	$10.17	$ 5.42
NET COST PER BUSHEL OR TON	$ .229	$ .489	$ .632	$ 9.21	$14.37	$16.55

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[1] The twine cost is included in the harvesting machinery charge.

3020.

MISCELLANEOUS CROPS (cont.)

Table 9.--Cost of Production (acre basis) Champaign-Piatt Counties---1945

Items	Oats	Hay	Alfalfa hay and soybeans	Silage	
	49	93	79	79	93
Acres in crop	1.40	3.62	2.47	5.80	4.73
Yield per acre (bu. or ton)	2.57	1.24	.81[1]	12.07	14.80
Labor per acre					
Man hours	8.39	9.39	10.32	29.35	32.56
Horse hours	--	1.66	--	--	22.83
Tractor hours	3.93	3.11	7.89	9.09	11.15
Truck miles	--	--	--	--	--
COST ITEMS PER ACRE					
Growing cost					
Man labor	$ 1.16	$ .41	$ 3.42	$ 3.21	$ 2.31
Horse labor	--	--	--	--	--
Tractor use	1.71	.42	2.95	1.96	2.15
Machinery	.13	.54	.46	.76	.49
Seed	1.81	--	--	--	--
Fertilizer	.35	2.07	8.22	2.76	3.63
Gen'l farm expense	--	3.19	1.07	3.04	11.06
Total growing cost	$ 5.16	$ 6.63	$16.12	$11.73	$19.64
Harvesting cost					
Man labor	$ 4.18	$ 6.06	$ 3.05	$15.83	$20.19
Horse labor	--	1.46	--	--	18.17
Tractor use	1.53	1.63	1.29	3.10	5.55
Truck use	--	--	--	--	.51
Machinery	--	.62	2.94	11.12	8.87
Thresher, combine or baler	3.52	1.63	2.03	--	--
Total harvesting cost	$ 9.23	$11.40	$ 9.31	$30.05	$53.29
Cost of growing and harvesting	$14.39	$18.03	$25.43	$41.78	$72.93
Taxes	1.57	1.68	1.58	1.58	1.68
Interest on land	6.25	7.50	4.00	6.50	7.50
TOTAL COST	$22.21	$27.21	$31.01	$49.86	$82.11
INCOME PER ACRE					
Grain or seed	$48.17	$23.00	$40.61	$96.55	$118.39
Hay	--	--	15.79	--	--
Straw	--	--	--	--	--
Pasture	--	--	--	--	--
TOTAL INCOME	$48.17	$23.00	$56.40	$96.55	$118.39
NET PROFIT PER ACRE	$25.96	$-4.21	$25.39	$46.69	$ 36.28
NET COST PER BUSHEL OR TON	$ 8.64	$21.89	--	$ 4.13	$ 5.55

[1] Total production of soybeans 49 bushels

LIVESTOCK PRODUCTION COSTS

In 1945, for the second consecutive year, livestock on these east-central Illinois farms was not able to convert farm-grown grains and roughage into meat and livestock products at a profit. While livestock in 1945 showed smaller losses than in 1944, the general disparity between prices of feed and livestock and livestock products again meant that the principal benefit from livestock production was to furnish manure at a time when the farms were being heavily cropped. In 1945 most of the livestock on these farms showed a small return (although not equal to the going wage for hired labor) for the time spent on them by the owner and members of his family, after all other costs were met.

Hogs

The volume of pork production on the cost-accounting farms has gradually declined until in 1945 it was back to the 1935 level. The size of the hog enterprise in 1945 varied a great deal from farm to farm. Of the 21 farms producing hogs in 1945, nine produced less than 10,000 pounds of pork; five between 10,000 and 20,000; five between 20,000 and 30,000; and two more than 30,000 pounds. More than twice as many farms as in 1944 were producing less than 10,000 pounds of pork. The average production for the 20 farms in 1945 was 16,937 pounds, or about 61 pounds per crop acre in these farms.

The cost of producing 100 pounds of hogs was $14.15, three cents less than in 1944 but $1.46 higher than in 1943. Feed costs in 1945 were 48 cents per 100 pounds less than in 1944; but labor costs, both direct and in the general farm expense, were substantially higher. In 1945 feed cost was 72 percent and labor 12 percent of the total cost.

Milk Cattle

In east-central Illinois dairying represents a minor enterprise on most farms. Of the farms with dairy cows, 11 had fewer than five cows each, six had from five to ten, and four had ten or more.

Producing milk under the existing feed and milk price ratio was profitable on only two of the farms. After all production expenses, other than the man labor costs, are subtracted from the total income from dairy cattle, there was a return of $11.86 for the 91.5 hours of man labor per animal unit, or 13 cents an hour. There were 2.19 tons of dairy-cattle manure hauled out of the barns and yards for each animal unit. This manure, which was credited to the dairy cattle at $1.00 a ton, was a valuable asset in helping to build up soil fertility on these farms.

It is of interest to observe the different ways in which the two dairy herds which showed a profit in 1945 were handled. The herd on Farm 79 was fed a good ration, including silage and mill feeds of high protein content. The milk production of this herd was 8,500 pounds per cow. On Farm 67 the dairy was not given much attention nor fed a well-balanced ration, and only 5,000 pounds of milk per cow were produced; but the income from this milk and the sales of cows and heifers, together with the increase in value of young dairy stock, resulted in a profitable enterprise.

Feeder Cattle

Feeder calves were finished for market in 1945 on only three of the 24 farms. An additional farm finished a drove of mixed yearlings. The calves made some profit, but the yearling feeders were not of good quality and did not make good use of the feed fed them. Feed was 87 percent of the cost of fattening feeder calves. When the calves were sold, their owners received over $1.00 a bushel for all corn fed to them after the market price of all other feeds had been paid and all other feeding expenses met.

Hogs were placed in the feedlot with all feeder cattle under study. The gains made by the hogs while following cattle were credited to the cattle at the average yearly price received for hogs sold from the farm. The hogs' gain in weight from corn in steer droppings depended largely on the weight of the steers and the kind and amount of corn fed them. As the hogs were fed other corn in a creep, the following factors were used in calculating the gains when they ran behind the feeder cattle:

Pork Credit per Bushel of Corn Fed to Steers
(Steers not fed silage)

Kind of corn fed to cattle	Yearling steers	Calves
	(lb. of pork)	
Broken ear	1.5	--
Corn- and cob-meal	.5	.3
Crushed ear	.75	.5
Ground shelled	.5	.3
Shelled	1.2	.75

Beef Cattle

Very minor consideration was given to beef cows on these cash-grain farms. Only one farm maintained a herd with as many as ten beef cows. Five of the herds, although considered beef cattle by their owners, were milked regularly throughout the year.

Much of the feed used by the beef cattle was cheap roughage and legume pasturage (in the rotation to help maintain soil fertility)--forms of feed for which there is practically no cash market and which would otherwise have been a loss. Man labor, which was also a large item of expense, was charged during the entire year at the same rate per hour as for all work. Much of the labor on cattle came during the winter when there was little other work to be done.

General farm expense, also an important item in the cost of cattle, consists of a share of the general operating expense of the farm, such as upkeep of fences and farmstead, cutting weeds, and other work which is not directly productive of any income, but of which a share must be borne by each part of the farm business.

In Table 13 the figure called "returns to roughage and labor per animal unit" shows how much cattle paid for these otherwise nonmarketable products. In 1945 all but one of the herds paid all other costs and brought a return for roughage and labor.

Poultry

Although the poultry enterprise is of minor importance on most of the cost-accounting farms, all the farms maintained a flock. There does not appear to be a single flock of laying hens on the farms large enough to be handled economically. Other studies have shown that flocks of less than 250 to 300 laying hens are not as economical to care for as are those of larger size. The largest flock on the cost-accounting farms was the most profitable one.

In computing poultry costs, the labor used to care for them was charged at the same hourly wage rate as for all other work done on the farm--66 cents an hour in 1945. In many instances this may have been rather high for the family labor charge. Even though poultry require considerable time, the work was done, in the main, by the farmer's wife and children.

In 1945 poultry on these farms returned 55 cents for each hour of labor spent on them, after paying for all other costs. The four flocks with the greatest profit returned an average of $2.72 for each hour of labor.

Sheep

Sheep were kept on nine of the 24 cost-accounting farms, but even on these farms it was a very small enterprise. Some of the flocks paid for all costs of maintenance and made a profit. The larger the flock, however, the lower the profit or the greater the loss from the enterprise.

On most farms in this area of Illinois, small flocks of sheep are kept to use nonmarketable feeds and roughage and to clean up weeds in fields and around the buildings. Labor and livestock equipment could usually be more efficiently used by larger livestock enterprises. On the other hand, many of these farms are not in a position to handle a large flock, and a small flock is considered beneficial in keeping weeds down even though no direct profit is returned.

HOGS

Table 10.--Cost of production of 100 lb. live weight of hogs on 20 farms (338,739.5 lb.)
Champaign-Piatt Counties--1945 (Farms ranked in order of total cost of producing 100 lb.)

Items	Farm number							
	96	56	83	91	15	90	97	73
COST ITEMS PER 100 POUNDS								
Feed fed	$ 7.55	$ 8.23	$ 9.41	$ 9.03	$ 9.27	$10.34	$ 8.45	$ 9.60
Man labor	.72	1.22	1.47	1.98	1.32	1.25	1.43	1.55
Interest on investment	.22	.33	.06	.14	.21	.41	.17	.34
Building expense	.19	.28	.26	.14	.09	.04	.55	--
Equipment	.30	.19	.37	.17	.75	.14	1.17	.72
Veterinary and medicine	.10	.18	.04	.15	.27	.22	.21	.55
Gen'l farm expense	.17	.62	.64	.78	.63	.47	1.51	.89
Miscellaneous	.01	.01	--	.03	.05	.01	.13	--
TOTAL COST	$ 9.26	$11.06	$12.25	$12.42	$12.59	$12.88	$13.62	$13.65
INCOME PER 100 POUNDS								
Receipts and net increases	$13.45	$13.30	$15.19	$13.96	$14.46	$15.05	$13.84	$14.88
PROFIT PER 100 POUNDS	$ 4.19	$ 2.24	$ 2.94	$ 1.54	$ 1.87	$ 2.17	$ .22	$ 1.23
FEEDS FED PER 100 POUNDS								
Corn equivalent	340	355	400	391	371	465	352	453
Corn	340	346	388	377	328	434	328	453
Oats	--	9	14	17	50	36	29	--
Wheat	--	--	--	--	--	--	--	--
Tankage equivalent	10	23	26	10	20	15	11	9
Soybeans	--	--	--	--	--	--	--	--
Tankage	--	9	5	--	2	4	1	--
Skimmilk	--	14	--	29	9	57	--	--
Other proteins	--	18	14	2	14	7	6	--
Millfeeds	--	--	1	--	1	--	3	--
Commercial feeds	19	--	18	15	18	--	14	12
Minerals	8	--	1	1	1	2	1	1
Straw	11	19	5	--	12	14	15	6
Roughage	4	--	--	--	2	--	--	2
Pasture days (an. unit)	2	4	2	5	4	6	5	6
MAN HOURS PER 100 POUNDS	1.2	2.0	2.2	3.0	1.7	1.8	2.2	2.3
Pork produced from feed fed	22 465	32 078	10 100	29 091	56 055	22 100	16 802	8 665
Total pounds hogs produced	22 465	36 729	10 100	29 265	56 275	22 100	16 802	8 665
Sold	15 815	35 110	13 350	29 740	55 145	13 550	18 160	9 740
Used	660	1 149	560	--	250	240	525	200

HOGS (cont.)

Table 10.--Cost of production of 100 lb. live weight of hogs on 20 farms (338,739.5 lb.)
Champaign-Piatt Counties--1945 (Farms ranked in order of total cost of producing 100 lb.)

Items	Farm number							
	49	89	98	101	95	74	45	67
COST ITEMS PER 100 POUNDS								
Feed fed	$11.38	$12.07	$11.10	$11.35	$10.40	$12.47	$11.46	$12.00
Man labor	1.18	1.22	2.36	2.10	3.38	2.85	1.64	2.40
Interest on investment	.48	.04	.26	.49	.32	.31	.57	.32
Building expense	.54	.18	.05	.05	.23	.09	.48	.25
Equipment	.26	.60	.33	.87	.64	.17	1.06	.38
Veterinary and medicine	--	.11	.18	.21	.24	.03	.54	.45
Gen'l farm expense	.85	.80	1.11	.78	1.57	1.09	1.56	1.61
Miscellaneous	--	--	--	.20	--	--	--	.01
TOTAL COST	$14.69	$15.02	$15.39	$16.05	$16.78	$17.01	$17.31	$17.42
INCOME PER 100 POUNDS								
Receipts and net increases	$10.30	$13.42	$15.24	$11.59	$15.21	$14.96	$13.38	$11.03
PROFIT PER 100 POUNDS	$-4.39	$-1.60	$ -.15	$-4.46	$-1.57	$-2.05	$-3.93	$-6.39
FEEDS FED PER 100 POUNDS								
Corn equivalent	476	501	515	378	439	561	447	546
Corn	466	490	497	337	395	552	422	504
Oats	12	12	21	48	52	11	29	50
Wheat	--	--	--	--	--	--	--	--
Tankage equivalent	34	18	19	19	26	20	36	15
Soybeans	--	--	--	--	--	--	--	--
Tankage	11	--	1	--	--	--	7	1
Skimmilk	161	87	198	42	159	9	72	--
Other proteins	14	14	--	2	16	13	29	15
Millfeeds	--	--	--	6	--	--	--	--
Commercial feeds	--	--	1	33	--	22	--	10
Minerals	--	9	--	15	--	--	4	2
Straw	16	69	--	9	--	7	31	17
Roughage	--	--	--	1	--	15	--	--
Pasture days (an. unit)	6	6	1	7	5	4	9	2
MAN HOURS PER 100 POUNDS	2.0	1.8	3.5	3.3	5.8	4.4	2.6	3.6
Pork produced from feed fed	5 148	5 835	8 445	23 430	6 990	27 365	11 332	12 342
Total pounds hogs produced	6 051	5 835	8 445	23 430	6 990	27 365	14 826	12 746
Sold	7 916	--	8 600	16 625	3 235	32 085	20 440	13 916
Used	--	--	1 000	470	--	900	520	--

HOGS (cont.)

Table 10.--Cost of production of 100 lb. live weight of hogs on 20 farms (338,739.5 lb.)
Champaign-Piatt Counties--1945 (Farms ranked in order of total cost of producing 100 lb.)

Items	Farm number					1945 average 20 farms	1944 average 20 farms	1943 average 21 farms
	92	80	93	62	27[1]			
COST ITEMS PER 100 POUNDS								
Feed fed	$ 9.71	$13.70	$14.58	$14.16	$23.11	$10.24	$10.72	$ 9.58
Man labor	4.64	2.22	2.69	3.18	7.96	1.76	1.52	1.33
Interest on investment	.12	.42	.20	.83	.74	.29	.27	.31
Building expense	1.47	.42	.18	.25	--	.19	.23	.16
Equipment	1.04	.71	.95	.50	.61	.52	.45	.25
Veterinary and medicine	--	.24	.36	.09	--	.21	.21	.23
Gen'l farm expense	1.57	1.22	1.26	2.85	4.01	.90	.74	.64
Miscellaneous	--	--	.10	.02	--	.04	.04	.19
TOTAL COST	$18.55	$18.93	$20.32	$21.88	$36.43	$14.15	$14.18	$12.69
INCOME PER 100 POUNDS								
Receipts and net increases	$ 9.20	$13.06	$15.77	$19.90	$17.60	$13.94	$13.18	$13.69
PROFIT PER 100 POUNDS	$-9.35	$-5.87	$-4.55	$-1.98	$-18.83	$ -.21	$-1.00	$ 1.00
FEEDS FED PER 100 POUNDS								
Corn equivalent	353	622	538	647	428	430	452	416
Corn	299	615	429	631	428	403	432	386
Oats	62	9	127	19	--	31	23	35
Wheat	--	--	--	--	--	--	1	1
Tankage equivalent	59	18	52	17	40	20	26	33
Soybeans	--	--	--	--	--	--	--	1
Tankage	--	1	27	16	--	4	4	3
Skimmilk	325	--	26	--	465	29	34	38
Other proteins	--	23	32	1	--	11	18	14
Millfeeds	--	--	--	--	--	1	--	1
Commercial feeds	69	--	--	2	--	12	8	25
Minerals	--	1	1	3	1	3	4	6
Straw	--	11	80	--	7	15	12	15
Roughage	--	7	94	--	--	6	4	3
Pasture days (an. unit)	4	9	3	8	--	5	4	5
MAN HOURS PER 100 POUNDS	6.1	4.0	3.7	4.9	12.2	2.7	2.7	3.0
Pork produced from feed fed	2 020	8 765	15 375	4 490	500	16 445	20 390	21 942
Total pounds hogs produced	2 020	8 765	15 375	4 490	500	16 937	21 300	22 633
Sold	370	11 860	14 975	5 380	--	16 301	26 201	20 398
Used	1 625	240	--	--	500	417	378	758

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[1] Not included in the average.

MILK CATTLE

Table 11.--Cost items and income (animal unit basis) for milk cattle on 20 farms
Champaign-Piatt Counties--1945 (Farms ranked in order of net profit for each animal unit)

Items	Farm number 79	67	83	74	62	80	73	15
COST ITEMS PER ANIMAL UNIT								
Feed	$126.92	$115.79	$108.58	$ 73.38	$100.17	$103.04	$112.66	$108.60
Man labor	74.28	26.57	38.57	44.78	40.10	47.93	44.76	51.91
Horse labor	--	--	--	.44	--	--	--	--
Interest on investment	4.24	4.00	4.21	3.59	6.83	3.32	4.84	4.66
Building expense	7.77	1.47	5.99	1.71	7.34	2.74	3.96	5.95
Equipment expense	1.52	1.78	1.33	3.15	6.58	3.05	2.10	6.23
Veterinary, medicine and testing	3.46	.13	7.36	--	2.16	--	2.01	1.11
Gen'l farm expense	12.70	17.77	16.84	17.17	35.93	26.48	25.59	24.92
Miscellaneous	25.34	12.43	17.80	.68	17.74	14.18	16.07	2.55
TOTAL COST	$256.23	$179.94	$200.68	$144.90	$216.85	$200.74	$211.99	$205.93
INCOME PER ANIMAL UNIT								
Milk	$233.82	$123.67	$133.46	$ 68.64	$122.05	$159.81	$156.24	$107.48
Increase	32.41	62.04	44.08	47.10	62.43	7.27	20.95	59.25
Manure	1.50	1.57	3.17	.40	1.08	1.70	1.42	1.75
TOTAL INCOME	$267.73	$187.28	$180.71	$116.14	$185.56	$168.78	$178.61	$168.48
NET PROFIT PER ANIMAL UNIT	$ 11.50	$ 7.34	$-19.97	$-28.76	$-31.29	$-31.96	$-33.38	$-37.45
MILK PRODUCED PER COW (LB.)	8 508	5 041	6 246	4 695	8 568	7 251	6 769	6 700
Value of milk per cow	$330.63	$175.69	$228.82	$176.02	$262.20	$280.75	$253.33	$189.79
Herd cost per cow	314.36	165.27	263.06	249.79	329.42	336.90	307.46	255.92
Herd cost of 100 lb. of milk	3.69	3.28	4.21	5.32	3.84	4.65	4.54	3.82
Value of 100 lb. of milk	3.89	3.48	3.66	3.75	3.06	3.87	3.74	2.83
FEED PER ANIMAL UNIT (LB.)								
Farm grains	1 972	2 554	1 709	884	2 532	1 929	3 027	1 465
Millfeeds	614	280	195	184	129	152	29	138
Hay	2 505	2 383	3 394	1 376	1 353	2 800	1 898	1 934
Silage	4 755	--	--	--	--	--	--	--
Whole milk	183	336	95	350	290	256	201	965
Skimmilk	13	--	--	25	--	--	--	--
Pasture days	172	241	239	225	241	212	253	217
LABOR PER ANIMAL UNIT								
Man hours	122.7	40.3	58.7	69.7	61.3	86.3	67.8	65.5
Horse hours	--	--	--	.59	--	--	--	--
Number of animal units	29.44	19.32	15.91	17.08	7.39	19.43	13.75	3.62
Number of dairy cows	20.82	13.60	9.28	6.66	3.44	11.06	8.48	2.05

MILK CATTLE (cont.)

Table 11.--Cost items and income (animal unit basis) for milk cattle on 20 farms Champaign-Piatt Counties--1945 (Farms ranked in order of net profit for each animal unit)

Items	Farm number							
	97	98	96[1]	93	45	56	92	95
COST ITEMS PER ANIMAL UNIT								
Feed	$112.84	$ 92.74	$144.10	$143.67	$125.93	$147.76	$141.18	$ 97.32
Man labor	59.34	59.44	127.32	73.38	59.40	72.20	74.82	73.69
Horse labor	--	.13	.66	.29	--	--	--	.28
Interest on investment	4.73	3.94	4.33	8.23	6.62	6.42	6.25	3.51
Building expense	12.58	1.47	11.39	4.70	3.64	2.29	8.60	4.38
Equipment expense	7.03	2.33	4.97	7.96	3.85	2.77	4.18	3.72
Veterinary, medicine and testing	--	1.34	7.21	15.82	3.90	2.92	1.05	.93
Gen'l farm expense	62.66	27.95	31.08	34.21	56.49	36.69	25.22	34.31
Miscellaneous	40.20	.68	8.91	18.26	7.56	2.59	.76	1.55
TOTAL COST	$299.38	$190.02	$339.97	$306.52	$267.39	$273.64	$262.06	$219.69
INCOME PER ANIMAL UNIT								
Milk	$208.50	$109.09	$204.18	$154.68	$208.81	$159.63	$109.52	$ 72.45
Increase	51.85	34.66	66.89	73.01	-19.45	30.39	48.70	37.45
Manure	1.45	1.16	3.82	4.62	2.29	1.11	3.08	1.65
TOTAL INCOME	$261.80	$144.91	$274.89	$232.31	$191.65	$191.13	$161.30	$111.55
NET PROFIT PER ANIMAL UNIT	$-37.58	$-45.11	$-65.08	$-74.21	$-75.74	$-82.51	$-100.76	$-108.14
MILK PRODUCED PER COW (LB.)	10 582	6 276	16 067	6 845	12 310	6 211	10 167	4 360
Value of milk per cow	$286.02	$170.36	$501.19	$271.92	$353.08	$201.11	$165.49	$135.66
Herd cost per cow	337.58	240.81	660.93	402.39	481.15	305.06	317.75	338.12
Herd cost of 100 lb. of milk	3.19	3.84	4.11	5.88	3.91	4.91	3.13	7.75
Value of 100 lb. of milk	2.70	2.71	3.12	3.97	2.87	3.24	1.63	3.11
FEED PER ANIMAL UNIT (LB.)								
Farm grains	2 327	1 291	1 828	2 127	2 086	3 181	770	1 325
Millfeeds	35	--	573	356	215	--	729	--
Hay	3 972	2 790	3 942	2 970	1 546	3 113	5 756	837
Silage	--	--	--	3 300	--	--	--	--
Whole milk	249	304	426	207	1 151	47	1 057	1 085
Skimmilk	--	568	--	67	--	231	--	--
Pasture days	164	256	217	227	141	351	238	313
LABOR PER ANIMAL UNIT								
Man hours	90.0	89.5	206.3	100.7	95.6	117.2	98.5	127.3
Horse hours	--	.17	.88	.33	--	--	--	1.03
Number of animal units	2.14	11.90	15.98	42.42	3.72	2.57	4.76	15.54
Number of dairy cows	1.56	7.62	6.51	24.13	2.20	2.04	3.15	8.30

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[1] Not included in the average.

MILK CATTLE (cont.)

Table 11.--Cost items and income (animal unit basis) for milk cattle on 20 farms
Champaign-Piatt Counties--1945 (Farms ranked in order of net profit for each animal unit)

Items	Farm number					1945 average 20 farms	1944 average 22 farms	1943 average 23 farms
	27	89	101	49	47			
COST ITEMS PER ANIMAL UNIT								
Feed	$120.43	$124.25	$189.10	$251.43	$168.53	$119.28	$112.64	$108.66
Man labor	172.13	54.53	91.09	58.85	101.85	59.30	46.35	36.36
Horse labor	--	--	--	--	--	.11	.62	.37
Interest on investment	7.16	5.82	6.12	4.42	4.82	5.11	4.72	4.58
Building expense	21.50	1.27	12.46	.41	3.62	4.58	4.22	3.73
Equipment expense	1.41	2.91	16.96	3.08	4.93	3.95	3.05	1.44
Veterinary, medicine and testing	--	.54	3.93	3.53	.35	4.54	3.19	2.51
Gen'l farm expense	86.75	35.49	33.84	42.65	90.22	27.88	19.92	15.74
Miscellaneous	28.26	11.01	7.48	9.22	31.55	13.88	9.63	8.25
TOTAL COST	$437.64	$235.82	$360.98	$373.59	$405.87	$238.63	$204.34	$181.64
INCOME PER ANIMAL UNIT								
Milk	$291.48	$ 94.68	$151.17	$167.81	$164.85	$145.50	$120.14	$111.17
Increase	31.85	5.25	53.00	32.19	64.15	43.50	25.70	31.60
Manure	2.74	1.65	1.13	4.40	.77	2.19	2.28	2.65
TOTAL INCOME	$326.07	$101.58	$205.30	$204.40	$229.77	$191.19	$148.12	$145.42
NET PROFIT PER ANIMAL UNIT	$-111.57	$-134.24	$-155.68	$-169.19	$-176.10	$-47.44	$-56.22	$-36.22
MILK PRODUCED PER COW (LB.)	7 808	4 617	8 976	8 393	6 495	6 859	6 386	6 219
Value of milk per cow	$295.25	$117.03	$222.74	$197.88	$221.92	$238.75	$206.54	$175.74
Herd cost per cow	408.26	282.95	452.13	397.38	458.98	316.60	303.19	233.00
Herd cost of 100 lb. of milk	5.23	6.13	5.04	4.73	7.07	4.62	4.75	3.75
Value of 100 lb. of milk	3.78	2.53	2.48	2.36	3.42	3.48	3.23	--
FEED PER ANIMAL UNIT (LB.)								
Farm grains	2 767	2 588	3 921	5 756	3 053	2 046	2 081	2 161
Millfeeds	--	107	339	--	--	246	250	203
Hay	4 140	3 627	2 623	5 325	3 881	2 571	2 352	3 022
Silage	--	--	--	--	--	1 243	582	530
Whole milk	--	--	1 035	--	885	350	361	450
Skimmilk	--	--	414	1 611	--	74	59	199
Pasture days	206	271	442	309	262	235	254	228
LABOR PER ANIMAL UNIT								
Man hours	262.6	82.2	142.5	102.1	153.9	91.50	86.48	83.27
Horse hours	--	--	--	--	--	.19	1.04	.64
Number of animal units	1.57	4.66	3.05	2.83	4.20	11.26	12.66	12.48
Number of dairy cows	1.55	3.77	2.07	2.40	3.12	6.86	7.36	7.89

14030.

FEEDER CATTLE

Table 12.--Cost and income (head basis) for feeder cattle
Champaign-Piatt Counties--1945 (Farms ranked in order of net profit per head sold)

Items	Farm number					1944[1] av. 6 droves	1943 av. 6 droves
	49	45	45	56	67		
Number of head sold	36	53	7	100	20	56	36
Sales weight	754	989	972	940	910	926	1 009
Purchase weight	371	486	475	506	700	510	622
Gain in weight	383	503	497	434	210	416	387
Days on feed	259	350	277	263	230	303	273
Gain per head per day (lb.)	1.48	1.44	1.80	1.65	.91	1.37	1.42
PURCHASE VALUE PER HEAD SOLD	$ 49.01	$ 63.25	$ 57.14	$ 67.33	$ 78.23	$ 68.37	$ 82.17
FEEDING COST PER HEAD							
Feed	$ 47.27	$ 86.40	$104.75	$ 89.40	$ 96.91	$ 96.13	$ 72.01
Man labor	3.19	4.37	3.35	3.22	8.89	4.14	5.04
Horse labor	--	.16	--	--	--	.13	.23
Interest on investment	2.47	3.24	1.97	2.47	2.76	2.89	3.65
Building expense	.50	4.80	--	.91	.62	2.07	1.86
Equipment expense	.70	2.33	2.00	.67	1.47	.98	.83
Gen'l farm expense	2.37	3.96	3.19	1.64	5.95	2.24	2.93
Miscellaneous	.92	--	--	--	--	.41	.48
TOTAL FEEDING COST	$ 57.42	$105.26	$115.26	$ 98.31	$116.60	$108.99	$ 87.03
TOTAL COST PER HEAD	$106.43	$168.52	$172.40	$165.64	$194.83	$177.36	$169.20
INCOME PER HEAD							
Sales value	$118.04	$171.15	$163.36	$158.17	$127.28	$145.15	$155.14
Value of hog gains	1.57	7.99	8.94	6.86	6.65	8.57	6.92
Manure	.95	1.23	1.42	.77	1.47	1.63	1.79
TOTAL INCOME PER HEAD	$120.56	$180.37	$173.72	$165.80	$135.40	$155.35	$163.85
PROFIT PER HEAD	$ 14.13	$ 11.85	$ 1.32	$ .16	$-59.43	$-22.02	$ -5.35
PURCHASE PRICE PER CWT.	$ 13.22	$ 13.02	$ 12.03	$ 15.51	$ 11.18	$ 13.40	$ 13.22
SALES PRICE PER CWT.	$ 15.66	$ 17.30	$ 16.80	$ 16.83	$ 13.99	$ 15.67	$ 15.38
AMOUNT OF FEED (LB.)							
Corn	1 238	2 708	2 336	3 534	4 186	3 452	2 989
Oats	126	181	841	89	166	409	160
Millfeeds	44	214	297	304	54	344	232
Hay	1 137	1 134	755	1 035	700	795	1 017
Silage	--	--	--	--	--	251	475
Minerals and salt	29	23	29	19	19	15	21
Straw	88	245	857	80	110	449	352
Pasture days	42	113	195	2	11	44	39
LABOR							
Man hours	5.55	7.13	5.40	5.42	14.16	8.19	11.15
Horse hours	--	.20	--	--	--	.22	.79
FEEDING COST PER 100 LB. GAIN	$ 15.00	$ 20.90	$ 23.18	$ 22.65	$ 55.52	$ 26.20	$ 22.48
PRICE REALIZED PER BU. CORN	$ 1.71	$ 1.31	$ 1.10	$ 1.06	$ .25	$ .68	$ .81

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[1] There were not enough droves of feeder cattle to warrant computing average costs in 1945.

Table 13.--Cost and income (herd basis) for beef herds on 7 farms
Champaign-Piatt Counties--1945 (Farms ranked in order of net profit for each herd)

Items	Farm number						
	56	89	92	49	91	100	90
Number of cows in herd	2.00	3.66	3.28	1.00	9.11	2.00	12.90
Number of animal units	2.28	10.94	5.68	13.17	14.44	4.05	21.74
HERD COSTS							
Feed	$142.78	$622.21	$521.78	$ 996.67	$1 145.20	$ 859.33	$2 536.99
Man labor	39.73	88.35	21.26	86.44	711.45	249.07	729.91
Horse labor	--	--	--	--	--	--	16.09
Interest on investment	22.25	57.00	23.00	81.88	74.30	21.00	185.25
Building expense	1.96	10.05	48.86	2.34	45.18	45.76	18.16
Gen'l farm expense	20.19	57.50	7.17	62.64	279.03	120.97	274.73
Veterinary and medicine	--	.50	--	4.50	8.75	2.00	4.50
Equipment expense	2.18	22.14	36.54	20.04	30.88	5.69	31.73
Miscellaneous	5.00	4.01	2.93	.55	35.86	13.06	12.50
TOTAL COST	$234.09	$861.76	$661.54	$1 255.06	$2 330.65	$1 316.88	$3 809.86
HERD INCOME							
Sales and inventory increase	$130.00	$511.63	$215.57	$ 844.44	$1 441.43	$ 120.00	$2 269.86
Milk	--	166.88	248.18	--	387.35	326.11	509.28
Value of hog gains	--	--	--	71.51	24.39	--	--
Manure	.69	10.25	11.53	16.66	13.14	22.40	21.64
TOTAL INCOME	$130.69	$688.76	$475.28	$ 932.61	$1 866.31	$ 468.51	$2 800.78
PROFIT PER HERD	$-103.40	$-173.00	$-186.26	$ -322.45	$ -464.34	$ -848.37	$-1 009.08
Returns to roughage and labor per animal unit	$ 28.30	$ 40.51	$ 62.58	$ 22.63	$ 71.19	$ -67.91	$ 51.50
Total pounds beef produced	1 100	4 280	2 510	5 680	6 720	1 900	16 565
POUNDS FEED FED HERD							
Corn	--	2 828	--	21 056	14 000	13 888	39 368
Oats	640	1 328	--	2 240	3 200	3 104	10 336
Millfeeds	--	--	--	500	25	6 063	3 900
Hay	5 000	22 000	37 750	23 010	26 070	21 940	55 800
Minerals and salt	9	348	123	37	356	264	572
Straw and fodder	--	6 000	3 000	--	11 990	1 840	25 500
Pasture days	780	2 680	1 304	3 711	3 730	1 146	7 819
LABOR							
Man hours	64	133	28	150	1 078	416	1 028
Horse hours	--	--	--	--	--	--	60
PERCENT FEED VALUE THAT WAS:							
Grain	10.1	13.5	--	44.5	31.2	39.3	39.5
Protein supplement	--	--	--	1.7	.1	22.6	5.1
Minerals and salt	.1	1.7	.3	.3	.5	.3	.3
Total concentrates	10.2	15.2	.3	46.5	31.8	62.2	44.9
Hay and straw	35.1	45.8	77.0	24.2	36.6	26.4	29.3
Pasture	54.7	39.0	22.7	29.3	31.6	11.4	25.8
Total roughage	89.8	84.8	99.7	53.5	68.2	37.8	55.1

POULTRY (Total Flock)

Table 14.--Cost and income for entire flock on 22 farms

Champaign-Piatt Counties--1945 (Farms ranked in order of total net profit from the poultry enterprise)

	Farm number								
Items	73	89	96	74	100	49	45	67[1]	62
Number of hens in flock	213	154	170	95	95	32	75	6	38
Eggs per hen	148	189	170	212	75	199	139	66	38
COST ITEMS PER FLOCK									
Feed	$ 483.22	$ 633.05	$1 103.28	$ 769.18	$132.60	$114.09	$176.76	$ .02	$ 84.24
Man labor	84.31	158.29	211.49	128.11	93.50	59.21	155.70	25.57	35.65
Horse labor	--	1.50	--	--	--	--	--	--	--
Interest on investment	9.20	10.98	7.75	10.05	6.83	2.71	5.98	.40	3.39
Bldg. and equip. expense	67.03	49.78	106.16	39.18	27.26	5.00	63.88	3.03	19.08
Gen'l farm expense	48.19	103.03	51.62	49.11	45.41	42.91	148.09	17.11	31.95
Miscellaneous	12.76	11.51	7.51	28.23	11.47	.85	22.71	.07	.86
Decrease	--	--	--	--	--	--	--	1.70	--
TOTAL COST	$ 704.71	$ 968.14	$1 487.81	$1 023.86	$317.07	$224.77	$573.12	$ 47.90	$175.17
INCOME PER FLOCK									
Eggs sold	$ 941.19	$ 802.13	$ 706.67	$ 542.12	$131.75	$126.09	$193.42	$ --	$ 14.75
Eggs used	102.25	93.33	87.72	69.98	56.55	51.59	122.63	11.22	24.31
Manure	4.75	11.91	22.85	4.55	16.60	3.41	2.23	--	.93
Increase and meat sales	333.86	701.98	1 051.67	598.24	140.06	57.27	228.90	--	90.12
TOTAL INCOME	$1 382.05	$1 609.35	$1 868.91	$1 214.89	$344.96	$238.36	$547.18	$ 11.22	$130.11
NET PROFIT PER FLOCK	$ 677.34	$ 641.21	$ 381.10	$ 191.03	$ 27.89	$ 13.59	$-25.94	$-36.68	$-45.06
FEED FED FLOCK (LB.)									
Farm grains	13 612	19 964	24 232	20 096	3 872	3 808	6 311	--	3 168
Purchased concentrates	4 400	3 250	13 975	7 703	800	300	950	--	400
Skimmilk	--	15 156	--	6 901	32 100	4 144	--	--	--
Litter	1 600	2 150	2 000	1 050	160	810	1 000	--	--
LABOR PER FLOCK									
Man hours	127.75	238.75	342.75	199.50	156.25	102.75	250.25	38.75	54.50
Horse hours	--	2.0	--	--	--	--	--	--	--
Number of eggs produced	31 461	29 082	28 853	20 134	7 152	6 381	10 436	396	1 428
No. used in household	3 609	3 294	3 096	2 470	5 156	1 821	4 328	396	858
No. sold	27 852	25 788	25 757	17 664	1 996	4 560	6 108	--	570
NET RETURNS PER 100 HENS	$ 318.00	$ 416.37	$ 224.18	$ 201.08	$ 29.36	$ 42.47	$-34.59	$-611.33	$-118.58
NET COST PER DOZEN EGGS	$ .202	$ .221	$ .262	$ .307	$ .289	$ .315	$ .380	$ 1.452	$ .442

1/ Not included in the average.

POULTRY (Total Flock) (cont.)

Table 14.--Cost and income for entire flock on 22 farms

Champaign-Piatt Counties--1945 (Farms ranked in order of total net profit from the poultry enterprise)

Items	Farm number								
	95	101	97	91	98	56	27[1]	93	47
Number of hens in flock	62	47	21	150	77	80	23	28	66
Eggs per hen	110	89	178	145	78	135	69	85	118
COST ITEMS PER FLOCK									
Feed	$154.16	$329.16	$144.89	$568.22	$261.72	$391.40	$ 20.95	$ 95.37	$273.90
Man labor	100.17	53.55	63.82	279.17	110.05	106.56	59.82	127.54	63.71
Horse labor	.54	--	--	--	--	--	--	3.52	--
Interest on investment	6.60	3.34	1.64	10.64	4.28	4.50	1.87	2.40	4.22
Bldg. and equip. expense	65.42	21.72	38.65	65.08	41.38	41.12	18.00	34.10	14.89
Gen'l farm expense	46.62	19.89	67.40	109.49	51.85	54.16	30.15	59.46	56.44
Miscellaneous	18.94	1.96	2.58	21.09	5.21	.68	.35	3.18	7.19
Decrease	--	--	--	--	--	--	32.77	--	--
TOTAL COST	$392.46	$429.62	$318.98	$1 053.69	$474.49	$598.42	$163.91	$325.57	$420.35
INCOME PER FLOCK									
Eggs sold	$168.29	$ 98.67	$ 72.74	$624.16	$126.68	$215.03	$ 3.84	$ 36.39	$156.73
Eggs used	35.38	9.86	29.66	57.37	27.68	80.72	40.86	25.67	53.04
Manure	2.05	2.78	1.16	5.76	2.57	2.65	.49	2.45	.76
Increase and meat sales	126.77	226.37	111.39	261.82	209.01	185.51	--	133.22	80.30
TOTAL INCOME	$332.49	$337.68	$214.95	$949.11	$365.94	$483.91	$ 45.19	$197.73	$290.83
NET PROFIT PER FLOCK	$-59.97	$-91.94	$-104.03	$-104.58	$-108.55	$-114.51	$-118.72	$-127.84	$-129.52
FEED FED FLOCK (LB.)									
Farm grains	2 144	14 024	3 576	16 616	7 448	16 912	1 048	3 840	15 344
Purchased concentrates	2 090	978	1 500	3 956	1 450	500	--	400	4 900
Skimmilk	--	3 679	--	2 718	11 168	--	11	--	--
Litter	1 200	100	700	1 460	50	1 200	72	400	--
LABOR PER FLOCK									
Man hours	173.00	83.75	96.75	423.00	165.75	173.00	91.25	175.00	96.25
Horse hours	2.0	--	--	--	--	--	--	4.0	--
Number of eggs produced	6 817	4 176	3 747	21 753	6 021	10 793	1 586	2 368	7 754
No. used in household	1 249	348	1 047	2 025	977	2 849	1 442	902	1 872
No. sold	5 568	3 828	2 700	19 728	5 044	7 944	144	1 466	5 882
NET RETURNS PER 100 HENS	$-96.73	$-195.62	$-495.38	$-69.72	$-140.97	$-143.14	$-516.17	$-456.57	$-196.24
NET COST PER DOZEN EGGS	$ .423	$ .398	$ .488	$ .418	$ .400	$ .407	$ 1.24	$ .520	$ .469

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[1] Not included in the average.

POULTRY (Total Flock) (cont.)

Table 14.--Cost and income for entire flock on 22 farms

Champaign-Piatt Counties--1945 (Farms ranked in order of total net profit from the poultry enterprise)

Items	Farm number						1945 average 22 farms	1944 average 23 farms	1943 average 23 farms
	79	83	15	80	92	90			
Number of hens in flock	142	115	119	164	102	168	101	103	123
Eggs per hen	152	102	112	32	145	81	124	130	109
COST ITEMS PER FLOCK									
Feed	$776.33	$456.42	$426.97	$239.64	$541.76	$334.85	$385.96	$387.93	$371.53
Man labor	372.03	213.15	240.46	167.92	323.85	510.97	166.33	147.95	146.16
Horse labor	--	--	--	--	--	1.88	.34	.89	2.09
Interest on investment	10.06	6.10	7.53	9.93	7.25	12.37	6.72	7.08	7.32
Bldg. and equip. expense	31.17	54.07	27.45	40.76	95.54	41.03	44.99	44.61	49.09
Gen'l farm expense	63.61	93.08	115.44	92.78	109.19	192.32	75.09	67.78	66.25
Miscellaneous	21.38	11.75	26.65	7.60	24.65	5.44	11.55	12.51	15.15
Decrease	--	--	--	--	--	--	--	--	--
TOTAL COST	$1 274.58	$834.57	$844.50	$558.63	$1 102.24	$1 098.86	$690.98	$668.75	$657.59
INCOME PER FLOCK									
Eggs sold	$699.27	$287.47	$289.56	$117.90	$375.66	$216.14	$315.58	$292.42	$332.07
Eggs used	42.16	103.70	76.19	19.29	109.95	165.52	65.66	54.99	69.98
Manure	5.69	11.78	7.07	3.80	15.23	2.42	6.06	6.78	7.38
Increase and meat sales	345.83	243.97	263.42	169.19	335.23	178.65	276.04	187.58	255.93
TOTAL INCOME	$1 092.95	$646.92	$636.24	$310.18	$836.05	$562.73	$663.34	$541.76	$665.36
NET PROFIT PER FLOCK	$ -181.63	$-187.65	$-208.26	$-248.45	$-265.19	$-536.13	$-27.64	$-126.99	$ 7.77
FEED FED FLOCK (LB.)									
Farm grains	27 632	18 680	10 904	7 624	13 720	13 576	12 141	12 574	12 684
Purchased concentrates	4 214	1 825	4 250	1 910	6 400	1 600	3 080	2 493	3 093
Skimmilk	453	--	2 276	--	15 826	--	4 292	2 097	1 934
Litter	1 000	500	--	1 000	4 000	--	926	1 334	1 194
LABOR PER FLOCK									
Man hours	614.50	324.25	303.25	302.50	426.50	720.00	252.25	274.00	333.00
Horse hours	--	--	--	--	--	7.0	.7	2.0	5.9
Number of eggs produced	21 558	11 700	13 339	5 301	14 776	13 642	12 667	13 443	13 321
No. used in household	1 488	3 660	2 689	681	3 880	5 842	2 461	2 199	2 545
No. sold	20 070	8 040	10 650	4 620	10 896	7 800	10 206	11 244	10 791
NET RETURNS PER 100 HENS	$-127.91	$-163.17	$-175.01	$-151.49	$-260.97	$-319.12	$-86.99	$-122.11	$ 6.33
NET COST PER DOZEN EGGS	$ .482	$ .519	$ .438	$ .563	$ .523	$ .657	$ .376	$ .437	$ .358

SHEEP

Table 15.--Cost and income for flocks on 5 farms Champaign-Piatt Counties--1945 (Farms ranked in order of net profit per flock)

Items	Farm number					
	79	90[1]	101[1]	83[1]	74[1]	89
COST ITEMS PER FLOCK						
Feed	$ 68.41	$ .06	$ 1.06	$ 4.63	$ 5.68	$ 68.46
Man labor	16.04	--	1.28	1.97	--	77.74
Interest on investment	1.50	1.25	1.90	.55	1.63	5.25
Building expense	--	.37	--	--	--	1.97
Equipment expense	.56	.20	3.67	.24	3.19	3.33
Gen'l farm expense	2.74	--	--	.86	--	50.60
Veterinary and medicine	--	--	--	--	--	3.25
Miscellaneous	2.71	--	--	.04	--	.92
TOTAL COST	$ 91.96	$ 1.88	$ 7.91	$ 8.29	$ 10.50	$211.52
INCOME PER FLOCK						
Increase	$108.18	$ 1.36	$ 21.00	$ --	$ --	$121.83
Wool	19.10	30.34	--	6.56	--	66.30
Manure	.17	--	.06	--	--	.66
TOTAL INCOME	$127.45	$ 31.70	$ 21.06	$ 6.56	$ --	$188.79
NET PROFIT PER FLOCK	$ 35.49	$ 29.82	$ 13.15	$ -1.73	$-10.50	$-22.73
FEED PER FLOCK (LB.)						
Corn	392	--	28	--	--	--
Oats	160	--	16	--	--	288
Soybeans	--	--	--	--	--	--
Millfeeds	--	--	--	--	--	--
Minerals	16	5	13	3	--	40
Hay	500	--	--	--	500	2 000
Straw	--	--	--	--	--	--
Pasture days	635	--	--	49	--	452
Whole milk	--	--	--	--	--	--
LABOR PER FLOCK						
Man hours	26.5	--	2	3	--	117.2
AVERAGE NUMBER OF SHEEP	4.54	1.2	2.28	.75	3.08	8.97
NUMBER OF EWES, JAN. 1, 1945	2	2	1	--	--	9
LAMBS PER EWE	1.2	--	1	1	--	1

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[1] Not included in the average.

SHEEP (cont.)

Table 15.--Cost and income for flocks on 5 farms
Champaign-Piatt Counties--1945 (Farms ranked in order of net profit per flock)

Items	Farm number			1945 average 5 farms	1944 average 8 farms	1943 average 11 farms
	91	47	49			
COST ITEMS PER FLOCK						
Feed	$ 55.07	$176.26	$258.68	$125.38	$133.08	$129.89
Man labor	133.31	--	96.38	64.69	36.73	39.71
Interest on investment	5.38	8.00	16.19	7.26	9.16	8.12
Building expense	2.70	--	8.25	2.58	4.09	8.44
Equipment expense	2.64	13.17	2.68	4.48	9.54	3.87
Gen'l farm expense	52.29	--	69.84	35.09	19.24	18.09
Veterinary and medicine	--	--	4.00	1.45	1.65	1.37
Miscellaneous	3.00	8.91	9.00	4.91	.80	5.65
TOTAL COST	$254.39	$206.34	$465.02	$245.84	$214.29	$215.14
INCOME PER FLOCK						
Increase	$100.00	$-15.00	$165.99	$ 96.20	$ 72.28	$ 89.53
Wool	34.02	63.75	62.34	49.10	25.24	23.56
Manure	.56	1.01	2.92	1.06	1.39	2.06
TOTAL INCOME	$134.58	$ 49.76	$231.25	$146.36	$ 98.91	$115.15
NET PROFIT PER FLOCK	$-119.81	$-156.58	$-233.77	$-99.48	$-115.38	$-99.99
FEED PER FLOCK (LB.)						
Corn	392	--	926	342	592	1 275
Oats	384	3 488	3 190	1 502	1 582	1 828
Soybeans	--	--	--	--	--	--
Millfeeds	--	--	--	--	12	71
Minerals	35	97	412	120	45	51
Hay	1 900	3 700	3 800	2 380	2 152	3 448
Straw	--	--	660	132	220	100
Pasture days	149	590	1 363	638	585	476
Whole milk	--	--	--	--	--	--
LABOR PER FLOCK						
Man hours	202	--	167.2	102.58	67.19	90.82
AVERAGE NUMBER OF SHEEP	10.00	15.7	21.05	12.05	9.15	14.41
NUMBER OF EWES, JAN. 1, 1945	9	15	18	10.60	8.62	10.18
LAMBS PER EWE	1	1.1	1.1	1.08	1.32	1.38

LABOR AND POWER COSTS

Man-Labor Costs

The total man-labor costs consist of cash and perquisites furnished to hired labor (including board and room, a house with land for a garden, meat, milk, eggs, or other farm products) plus local labor wages for the operator and members of his family. On these farms which averaged 287 acres, the average total man-labor cost was $2,986.35, of which $986.08 was for hired labor. The hourly labor rates varied from 56 cents to 80 cents an hour, with an average of 66 cents.

Table 16.--Man-Labor Costs, Not Including the Cost of Detasseling Corn

Item	Average of 24 farms		Your farm	
	Amount	Percent of total	Amount	Percent of total
Hired-labor cost				
Cash	$734.55	74.5	$	
Perquisites				
Board	55.71	5.6		
Food	58.91	6.0		
Feed	46.59	4.7		
Buildings, ins., etc.	90.32	9.2		
Total	($251.53)	(25.5)	($)	( )
Total	$986.08	100.0	$	
Hours of labor performed by hired men	1 622	--		--
Cost an hour of regular monthly labor	$ .660	--	$	--

Item	Average of 24 farms			Your farm		
	Cost	Percent of total cost	Hours of labor	Cost	Percent of total cost	Hours of labor
Hired labor	$ 986.08	33.0	1 622	$		
Custom labor	87.08	2.9	74			
Family labor	379.16	12.7	575			
Operator's labor	1 534.03	51.4	2 326			
Total labor	$2 986.35	100.0	4 597	$		
Labor off farm	$ 56.42	--	89	$		
Net labor on farm	$2 929.93	--	4 508	$		

Horse-Labor Costs

Horses were still to be found on eleven of the 24 farms, but their use as a power unit was practically extinct. Only one farm had more than one team of horses. Because of the wide variation in the hours worked by horses, the hourly rate also varied widely. The lowest cost per hour was 27 cents. On two farms the cost was over $3.50 an hour. A table showing the breakdown of horse-labor costs has been omitted from this report.

Tractor Costs

All of the farms used tractors as the principal source of power. One farmer used four tractors which were jointly owned and used with a brother. Six farms each had three tractors for part or all of the year, seven others each had two tractors, and each of the remaining ten had one. A total of 46 tractors were used on the 24 farms.

The drawbar-horse power ratings of the 46 tractors based on the reports of the Nebraska Tractor Tests varied from 9.8 to 33.0. For the purpose of analyzing and comparing operating costs, the tractors were divided into three groups: (1) drawbar-horsepower ratings between 9.0 and 16.0, (2) ratings between 16.0 and 21.0, and (3) ratings between 21.0 and 33.0. These groupings appear to be the logical breaks in horsepower for these farms.

In the 9.0 to 16.0 drawbar-rating group, the hourly cost varied from 34.4 cents to 82.5 cents; the average was 56.6 cents. This rate was higher than in 1943 and 1944. The average hours of use was slightly higher in 1945 than 1944, but considerably lower than in 1943.

For the 16.0 to 21.0 drawbar-rating group, the average hourly cost of 67.6 cents was 18 cents an hour above the cost in 1944. In this group the range was 42.3 cents to $1.22. The average cost of operation, $353.73, was $70.00 above 1944.

In the 21.0 to 33.0 drawbar-rating group, the operating cost varied from 52.5 cents an hour for a tractor used 536 hours to $1.22 an hour for a tractor used 161 1/2 hours. The average cost of operating these three-bottom tractors was $451.72, nearly $51.00 above the 1944 cost.

The cost of tractor repairs were markedly higher in 1945 than in 1944 in the two lower drawbar-rating groups but were lower in the highest drawbar-rating grou Farmers' spent less hours repairing the smaller tractors and about the same time repairing the larger tractors in 1945 as in 1944.

TRACTORS WITH DRAWBAR RATINGS BETWEEN 9.0 AND 16.0 HORSEPOWER
Table 17.--Total operating cost of tractor and hours of use for 8 tractors
Champaign-Piatt Counties--1945 (Tractors ranked in order of net cost per hour of use)

Items	Farm number					
	56	79	27	73	80	90
Horsepower rating	11.1	13.8	12.1	15.8	12.7	10.9
COST ITEMS PER TRACTOR						
Fuel and oil	$ 95.99	$ 90.09	$ 96.73	$105.25	$124.54	$ 55.69
Repairs	1.00	--	186.09	41.99	23.63	3.86
Man labor	4.62	1.77	7.21	.66	19.14	11.89
Shelter	4.20	--	5.88	3.95	7.49	1.97
Depreciation	117.28	21.85	-71.00	100.13	129.45	30.00
Interest on investment	52.20	13.50	13.95	41.50	43.40	7.00
Miscellaneous	5.30	--	--	.91	4.43	.87
TOTAL COST	$280.59	$127.21	$238.86	$294.39	$352.08	$111.28
HOURS TRACTOR USED						
Drawbar work	795.00	206.25	494.00	475.50	435.50	163.50
Belt work	20.00	41.50	--	38.00	2.50	2.00
TOTAL HOURS USED	815.00	247.75	494.00	513.50	438.00	165.50
NET COST PER HOUR	$ .344	$ .357	$ .484	$ .573	$ .582	$ .672
Year new	1944	--	1937	1942	1944	1944
Hours of man labor (chores and overhauling)	7.50	3.00	11.00	1.00	34.00	16.75
Crop acres per farm	401.82	66.29	136.62	61.84	174.82	257.35

TRACTORS WITH DRAWBAR RATINGS BETWEEN 9.0 AND 16.0 HORSEPOWER (cont.)

Table 17.--Total operating cost of tractor and hours of use for 8 tractors
Champaign-Piatt Counties--1945 (Tractors ranked in order of net cost per hour of use)

Items	Farm number		1945 average 8 tractors	1944 average 9 tractors	1943 average 6 tractors
	91	15			
Horse power rating	9.8	15.8	12.8	13.1	13.52
COST ITEMS PER TRACTOR					
Fuel and oil	$ 36.12	$149.75	$ 94.27	$ 97.67	$115.90
Repairs	57.14	195.17	63.61	38.01	61.96
Man labor	--	62.24	13.44	14.79	8.07
Shelter	10.15	24.80	7.31	7.79	9.04
Depreciation	40.00	55.69	52.92	51.22	49.17
Interest on investment	18.00	35.00	28.07	26.61	29.58
Miscellaneous	.72	9.20	2.68	1.55	2.82
TOTAL COST	$162.13	$531.85	$262.30	$237.64	$276.54
HOURS TRACTOR USED					
Drawbar work	236.00	581.50	423.41	418.75	543.83
Belt work	--	63.00	20.87	22.92	24.00
TOTAL HOURS USED	236.00	644.50	444.28	441.67	567.83
NET COST PER HOUR	$ .687	$ .825	$ .566	$ .532	$ .487
Year new	1939	1941	--	--	--
Hours of man labor (chores and overhauling)	--	78.50	18.97	27.08	19.00
Crop acres per farm	206.23	319.02	203.00	184.36	138.51

TRACTORS WITH DRAWBAR RATINGS BETWEEN 16.0 AND 21.0 HORSEPOWER

Table 18.--Total operating cost of tractors and hours of use for 23 tractors Champaign-Piatt Counties--1945 (Tractors ranked in order of net cost per hour of use)

Items	Farm number								
	101	45	74	98	91	45	74	92	92
Horsepower rating	20.9	19.3	16.3	19.1	19.2	19.3	20.5	19.1	19.1
COST ITEMS PER TRACTOR									
Fuel and oil	$113.54	$167.43	$139.70	$225.71	$222.56	$226.82	$120.24	$170.63	$147.40
Repairs	33.16	129.36	12.73	26.43	41.01	218.66	12.77	85.54	55.17
Man labor	.96	15.23	--	17.26	5.28	37.29	1.28	6.83	6.07
Shelter	4.06	3.21	1.78	2.66	7.81	4.50	1.78	4.67	12.49
Depreciation	130.55	--	15.00	30.00	58.48	-50.00	88.62	10.00	80.00
Interest on investment	42.50	11.00	22.50	31.50	32.50	17.50	41.00	23.00	24.50
Miscellaneous	--	3.24	1.67	10.28	.72	3.23	1.67	1.19	2.33
TOTAL COST	$324.77	$329.47	$193.38	$343.84	$368.36	$458.00	$267.36	$301.86	$327.96
HOURS TRACTOR USED									
Drawbar work	748.00	724.25	437.50	775.00	712.00	877.75	475.00	530.50	531.50
Belt work	19.00	43.00	3.00	.50	8.00	16.50	7.00	--	--
TOTAL HOURS USED	767.00	767.25	440.50	775.50	720.00	894.25	482.00	530.50	531.50
NET COST PER HOUR	$ .423	$ .429	$ .439	$ .443	$ .512	$ .512	$ .555	$ .569	$ .617
Year new	1944	--	1936	1939	1944	1937	1941	1939	1939
Hours of man labor (chores and overhauling)	1.50	24.50	--	26.00	8.00	60.00	2.00	9.00	8.00
Crop acres per farm	219.32	625.64	301.95	309.50	206.23	625.64	301.95	522.01	522.01

TRACTORS WITH DRAWBAR RATINGS BETWEEN 16.0 AND 21.0 HORSEPOWER (cont.)
Table 18.--Total operating cost of tractors and hours of use for 23 tractors
Champaign-Piatt Counties--1945 (Tractors ranked in order of net cost per hour of use)

Items	Farm number								
	67	56	97	93	62	100	83	91	90
Horsepower rating	19.2	19.3	20.0	19.2	20.5	19.2	19.2	16.3	20.5
COST ITEMS PER TRACTOR									
Fuel and oil	$ 59.81	$ 86.26	$205.44	$178.42	$144.33	$260.43	$239.39	$ 95.35	$155.23
Repairs	5.18	79.11	98.01	204.22	63.37	171.23	225.50	11.59	20.22
Man labor	1.98	6.78	72.73	30.25	17.01	15.26	--	5.28	32.82
Shelter	2.73	3.67	8.73	.91	1.04	10.34	2.64	35.79	3.01
Depreciation	53.69	120.00	9.06	54.00	129.29	--	--	74.50	137.61
Interest on investment	12.50	28.50	27.00	27.50	46.85	28.25	30.00	20.00	40.00
Miscellaneous	.59	4.20	8.22	13.92	3.62	4.69	1.15	.72	4.96
TOTAL COST	$136.48	$328.52	$429.19	$509.22	$405.51	$490.20	$498.68	$243.23	$393.85
HOURS TRACTOR USED									
Drawbar work	214.00	511.00	656.00	758.00	607.50	730.00	695.00	316.00	508.50
Belt work	4.00	4.00	12.50	24.00	9.50	1.00	--	--	--
TOTAL HOURS USED	218.00	515.00	668.50	782.00	617.00	731.00	695.00	316.00	508.50
NET COST PER HOUR	$ .626	$ .638	$ .642	$ .651	$ .657	$ .671	$ .718	$ .770	$ .775
Year new	1942	1939	1939	1938	1941	1942	1939	1936	1941
Hours of man labor (chores and overhauling)	3.00	11.00	110.25	41.50	26.00	25.50	--	8.00	46.25
Crop acres per farm	158.57	401.82	133.92	460.73	153.24	152.22	160.33	206.23	257.35

TRACTORS WITH DRAWBAR RATINGS BETWEEN 16.0 AND 21.0 HORSEPOWER (cont.)
Table 18.--Total operating cost of tractors and hours of use for 23 tractors
Champaign-Piatt Counties--1945 (Tractors ranked in order of net cost per hour of use)

Items	Farm number					1945 average 23 tractors	1944 average 20 tractors	1943 average 18 tractors
	96	89	67	93	89			
Horsepower rating	20.9	19.2	19.1	20.0	18.9	19.3	19.1	19.0
COST ITEMS PER TRACTOR								
Fuel and oil	$215.36	$110.88	$ 41.41	$ 98.69	$140.08	$155.00	$134.50	$157.50
Repairs	111.09	118.47	14.96	19.27	114.81	81.39	45.22	72.37
Man labor	3.70	17.77	2.64	16.76	23.04	14.62	13.49	9.69
Shelter	3.25	2.46	2.73	.91	6.99	5.57	6.02	6.01
Depreciation	50.00	173.02	35.00	75.00	227.40	65.27	53.75	49.06
Interest on investment	10.00	20.00	13.25	25.00	36.50	26.58	28.47	32.13
Miscellaneous	29.87	8.13	.58	6.25	10.59	5.30	2.23	4.09
TOTAL COST	$423.27	$450.73	$110.57	$241.88	$559.41	$353.73	$283.68	$330.85
HOURS TRACTOR USED								
Drawbar work	511.00	459.25	116.00	244.00	455.00	547.51	575.15	660.15
Belt work	--	38.25	--	--	5.00	8.49	9.74	8.03
TOTAL HOURS USED	511.00	497.50	116.00	244.00	460.00	556.00	584.89	668.18
NET COST PER HOUR	$ .828	$ .906	$ .953	$ .991	$ 1.216	$ .676	$ .496	$ .495
Year new	1938	1941	1938	1943	1938	--	--	--
Hours of man labor (chores and overhauling)	6.00	27.00	4.00	23.00	34.75	21.97	24.16	21.36
Crop acres per farm	261.23	195.17	158.57	460.73	195.17	303.89	313.29	325.92

TRACTORS WITH DRAWBAR RATINGS BETWEEN 21.0 AND 33.0 HORSEPOWER

Table 19.--Total operating cost of tractor and hours of use for 15 tractors
Champaign-Piatt Counties--1945 (Tractors ranked in order of net cost per hour of use)

Items	Farm number								
	56	92	93	98	80	47	74	49	45
Horsepower rating	24.4	26.2	22.6	24.8	25.7	26.2	24.6	21.2	29.6
COST ITEMS PER TRACTOR									
Fuel and oil	$128.15	$265.45	$255.19	$157.30	$202.96	$203.99	$119.19	$190.54	$248.60
Repairs	1.40	149.61	143.89	23.60	94.59	27.97	38.56	140.92	266.73
Man labor	7.08	3.80	14.94	27.55	51.57	5.63	18.62	42.35	33.56
Shelter	4.20	4.67	.91	2.66	3.29	2.59	1.77	2.95	5.14
Depreciation	110.00	25.00	110.95	71.57	135.00	149.50	45.00	81.50	31.02
Interest on investment	25.50	40.00	55.00	27.50	38.25	48.05	13.50	35.50	25.00
Miscellaneous	5.17	2.34	5.46	7.57	9.47	4.62	1.68	2.44	7.51
TOTAL COST	$281.50	$490.87	$586.34	$317.75	$535.13	$442.35	$238.32	$496.20	$617.56
HOURS TRACTOR USED									
Drawbar work	536.00	775.50	792.00	442.00	680.50	558.50	303.00	583.00	733.50
Belt work	--	--	26.00	--	30.50	9.50	--	23.25	5.25
TOTAL HOURS USED	536.00	775.50	818.00	442.00	711.00	568.00	303.00	606.25	738.75
NET COST PER HOUR	$ .525	$ .633	$ .717	$ .719	$ .753	$ .779	$ .787	$ .818	$ .836
Year new	1939	1941	1940	1942	1940	1940	1934	1938	1936
Hours of man labor (chores and overhauling)	11.50	5.00	20.50	41.50	92.50	8.50	29.00	73.50	54.00
Crop acres per farm	401.82	522.01	460.73	309.50	174.82	175.73	301.95	310.85	625.64

TRACTORS WITH DRAWBAR RATINGS BETWEEN 21.0 AND 33.0 HORSEPOWER (cont.)

Table 19.--Total operating cost of tractor and hours of use for 15 tractors Champaign-Piatt Counties--1945 (Tractors ranked in order of net cost per hour of use)

Items	Farm number						1945 average 15 tractors	1944 average 16 tractors	1943 average 16 tractors
	49	96	15	95	67	67			
Horsepower rating	21.2	22.0	21.2	24.8	26.2	33.0	24.9	23.8	25.4
COST ITEMS PER TRACTOR									
Fuel and oil	$154.50	$223.98	$310.40	$308.38	$167.90	$ 20.82	$197.16	$187.84	$203.08
Repairs	151.57	49.00	117.97	130.13	68.21	--	93.61	146.11	69.81
Man labor	23.63	--	32.91	82.22	12.54	--	23.76	23.34	13.34
Shelter	1.58	3.25	2.50	7.68	3.07	--	3.08	3.59	3.81
Depreciation	130.51	60.00	135.80	138.72	58.64	126.45	93.98	6.98	48.03
Interest on investment	18.00	13.00	17.50	58.00	20.00	44.63	31.96	28.87	30.92
Miscellaneous	.89	1.81	6.88	57.09	5.09	4.55	8.17	3.83	5.76
TOTAL COST	$480.68	$351.04	$623.96	$782.22	$335.45	$196.45	$451.72	$400.56	$374.75
HOURS TRACTOR USED									
Drawbar work	531.50	390.00	657.00	799.50	339.50	161.50	552.20	553.52	592.31
Belt work	10.00	--	2.00	13.50	--	--	8.00	7.34	10.53
TOTAL HOURS USED	541.50	390.00	659.00	813.00	339.50	161.50	560.20	560.86	602.84
NET COST PER HOUR	$ .888	$ .900	$ .947	$ .962	$ .988	$ 1.216	$ .831	$ .768	$ .622
Year new	1938	1939	1936	1941	1940	1945	--	--	--
Hours of man labor (chores and overhauling)	41.00	--	41.50	142.00	19.00	--	38.63	41.98	28.88
Crops per farm	310.85	261.23	319.02	290.34	158.57	158.57	318.78	332.75	329.55

FARM EARNINGS

Farm earnings in 1945 were lower than in 1943 but higher than in any other year since the cost accounting work began 25 years ago. The good earnings in 1945 were due to good crop yields and to good prices for crops and livestock. In general, farmers who fed considerable livestock in 1945 did not earn as high a rate of income on invested capital as did farmers who sold their grain. This period of high farm income was in distinct contrast to such periods as the early 1930's, when farm income failed to equal operating expenses and there was no return for use of capital. Farm debts, however, are paid from long-term farm earnings. During the entire period of this study, the annual earnings on these better-than-average farms were about 8 percent on the total investment. This return is probably 3 1/2 percent higher than the average earned by all farmers in the same area. From the results of many studies made by this department, it may be assumed that the 1945 income of the average farm in the two counties was comparable to that of the lower one-third of the cost farms.

THE ANALYSIS OF THE FARM BUSINESS

The cost, incomes, profits and losses, yields, labor and power requirements, other physical factors in crop production, and the feed and labor used for each livestock enterprise of the 24 farms in the study have been set forth in the preceding pages. The following tables (20, 21, and 22) bring together in convenient form some pertinent information dealing largely with the farms as a whole. The comparisons given here should be of particular value to the individual cooperator in his efforts to improve the management of the farm.

In Tables 20, 21, and 22, the farms are arranged in order of the rate earned on investment. The figures in the other columns do not have any particular order. Farms differ in many respects, and usually a farm with a high income has some points of weakness and a farm with a low income has some points of strength.

At the foot of each column, figures are shown for the high- and low-income farms and for the average of the group. These figures will aid in making comparisons with individual farms.

Description of Table 20 (page 47)

Rate earned on capital represents the net income of the farm expressed as a percentage of the total investment. The value of the labor of the farmer and his family is deducted as an expense, but no compensation is allowed for his management.

Total investment per acre is the combined value of land, improvements (except operator's dwelling), machinery, feed, grain, and livestock, as shown in the opening inventory, divided by the total farm acreage.

Operating capital per acre is the sum of the capital invested in the farm business other than real estate. The principal items in the operating capital are the investment in livestock, machinery, grain, and feed at the beginning of the year. A high operating capital usually indicates an intensive farm business.

(Continued on page 48)

Table 20.--Factors helping to analyze the farm business on 24 farms
Champaign-Piatt Counties--1945 (Farms ranked in order of rate earned on investment)

Farm No.	Rate earned on capital in percent	Acres in farm	Total investment per acre	Operating capital per acre	Farm buildings per acre		Fencing per acre		Gross income per acre	Total expense per acre	Net income per acre	Percent of cropland in				Crop yields per acre of			
					Investment	Expense	Investment	Expense				Corn	Oats	Wheat	Soybeans	Corn	Oats	Wheat	Soybeans
56	25.33	418.24	$230.68	$74.89	$16.03	$1.69	$ .93	$ .41	$ 94.82	$44.08	$50.74	45.4	12.1	--	40.2	86	45	--	24
15	19.72	344.23	226.84	65.06	20.18	1.90	4.00	.91	69.40	43.07	26.33	49.5	12.4	--	25.6	67	57	--	26
92	19.70	563.40	202.82	36.20	15.30	1.64	1.11	.65	61.76	23.81	37.95	35.5	13.5	--	47.2	71	68	--	25
74	19.15	353.30	215.65	53.82	17.20	1.57	1.33	.40	71.89	30.88	41.01	42.8	10.7	--	46.5	62	75	--	28
83	17.83	189.87	167.45	37.17	18.05	1.87	1.44	.64	68.51	35.78	32.73	38.9	25.0	--	31.8	49	56	--	21
80	17.34	202.49	235.79	78.26	18.33	1.76	3.01	1.14	81.38	40.49	40.89	47.7	21.5	--	26.0	69	51	--	26
98	17.11	329.22	182.59	39.13	6.53	.67	.60	.49	53.51	22.53	30.98	42.1	10.4	--	42.5	60	45	--	17
91	17.10	241.16	225.30	65.20	28.64	2.78	2.67	.54	72.84	34.67	38.17	32.8	19.7	--	41.2	66	47	--	21
101	16.68	237.18	195.17	30.64	13.68	1.17	.85	.25	65.53	32.68	32.85	47.7	26.0	--	26.2	51	33	--	24
79	16.32	99.60	211.38	67.52	30.19	3.64	1.36	.67	122.00	87.50	34.50	52.6	9.9	--	33.8	68	46	--	18
73	16.15	79.07	254.84	91.87	24.19	2.33	3.28	.63	90.23	49.07	41.16	28.2	22.4	--	31.1	54	77	--	30
45	15.72	680.45	246.74	48.47	39.33	2.61	1.18	.60	71.17	36.51	34.66	38.0	19.4	--	35.2	64	51	--	25
27	15.49	158.47	214.72	40.28	23.09	2.34	.63	.11	57.06	24.18	32.88	43.8	55.7	--	.7	70	--	--	23
62	15.26	200.92	167.00	40.06	6.30	.84	.94	.42	55.91	30.42	25.49	45.6	13.1	--	38.1	52	42	--	23
47	14.13	201.48	182.34	45.90	6.79	.55	.44	.16	47.08	21.31	25.77	29.4	20.7	--	33.2	72	49	--	24
89	13.95	235.95	223.68	58.02	10.82	1.08	2.22	.47	59.45	32.15	27.30	45.2	21.9	--	33.0	60	44	--	24
93	13.31	536.87	264.40	70.91	29.88	3.40	2.20	.61	76.95	42.66	34.29	39.6	12.2	--	42.8	66	85	--	30
49	13.12	347.73	194.07	57.21	10.74	.99	1.16	.46	57.00	25.37	31.63	41.7	11.12	--	36.8	49	39	--	15
96	12.49	304.48	200.88	38.43	23.59	2.80	.84	.45	58.81	35.33	23.48	40.4	12.33	--	41.6	48	56	--	20
67	11.65	192.77	215.49	60.04	20.62	2.10	3.37	.90	95.99	66.89	29.10	47.4	--	--	49.8	50	--	--	22
100	11.35	157.37	205.98	44.77	16.85	1.50	.67	.33	49.41	26.02	23.39	51.8	--	--	44.3	47	--	--	20
90	10.39	330.28	192.55	46.03	19.76	2.19	2.12	.52	46.50	26.49	20.01	46.0	7.7	--	23.4	54	45	--	19
97	9.21	158.27	236.26	52.90	20.74	2.50	3.58	1.06	69.67	41.12	28.55	49.8	23.9	--	19.1	56	60	--	23
95	8.61	317.53	173.90	37.89	17.95	2.12	.53	.54	43.44	28.36	15.08	35.2	10.7	--	52.5	49	31	--	15
High	25.33	680.45	264.40	91.87	39.33	3.64	4.00	1.14	122.00	87.50	50.74	52.6	55.7	--	49.8	86	85	--	30
Low	8.61	79.07	167.00	30.64	6.30	.55	.44	.11	43.44	21.31	15.08	28.2	7.7	--	.7	47	31	--	15
Av.	15.30	286.68	211.10	53.36	18.95	1.92	1.69	.56	68.35	36.72	31.62	41.6	14.0	--	38.4	61	53	--	23

Investment and expense under farm buildings per acre is the total investment and annual expense for buildings reduced to an acre basis. High figures often show overinvestment in buildings, and very low figures often indicate inadequate buildings.

Investment and expense under fencing per acre may represent a considerable burden.

Gross income per acre is the sum of sales, increases in inventory, products used in the household, and perquisites furnished to labor, divided by the total farm acreage. The total expense includes cash expenditures, decreases in inventory perquisites furnished labor, and the value of unpaid labor of farm operator and family.

Net income per acre is the difference between the gross income and the total expense an acre.

Description of Table 21 (page 49)

Crop acres in farm indicates the acreage upon which work was performed (such as preparing a seedbed, planting, or harvesting).

Investment and expense under crop machinery per crop acre is the burden each acre of crops must bear for the machinery (not including power) which is necessary to work it. Machinery expense per acre includes the cost of power-drawn machines hired to do custom work on the farm.

Man labor cost per crop acre is the value of hired labor plus the value of the time of the farm operator and members of the farm family. This time is charged at hired man's wages and is distributed over each crop acre in the farm.

Power cost per crop acre includes the acre cost of tractor power, truck expense, horse labor, the farm share of automobile expense, and the cost of power hired to do custom work.

Power and machinery cost per acre is the total of the power cost and machinery expense shown per crop acre.

Labor, power, and machinery cost per crop acre includes the combined cost of three items.

Man labor under "cost per $100 gross income" represents the amount of each $100 of income required to pay the total labor bill (operator, family, hired labor, and perquisites).

Power and machinery under "cost per $100 gross income" is that amount of the $100 of income represented by the machinery and horse costs.

Total farm under "costs per $100 gross income" is the amount of each $100 of income required to pay total expenses.

(Continued on page 51)

Table 21.--Factors helping to analyze the farm business on 24 farms Champaign-Piatt Counties--1945 (Farms ranked in order of rate earned on investment)

Farm No.	Rate earned	Crop acres per farm	Crop machinery per crop acre		Man labor cost per crop acre	Power cost per crop acre	Power and machinery cost per crop acre	Labor, power and machinery cost per crop acre	Cost per $100 gross income			Crop acres per man	Labor and power cost per hour				
			Investment	Expense					Man labor	Power and machinery	Total farm		Man	Horse	Tractor		
															A	B	C
56	25.33	401.82	$ 5.05	$2.84	$ 8.56	$3.56	$ 6.40	$14.96	$ 8.67	$ 6.49	$46.49	156.96	$.612	$ --	$.344	$.638	$.525
15	19.72	319.02	6.97	4.43	11.49	5.00	9.43	20.92	15.34	12.59	62.04	143.06	.795	--	.825	--	.947
92	19.70	522.01	5.07	1.88	8.46	3.74	5.62	14.08	12.70	8.43	38.55	209.64	.759	.53	--	.569 .617	.633
74	19.15	301.95	8.99	3.08	12.39	4.53	7.61	20.00	14.71	9.05	42.96	122.74	.642	1.08	--	.439 .555	.787
83	17.83	160.33	9.44	2.30	11.23	4.11	6.41	17.64	13.84	7.90	52.22	137.03	.657	--	--	.718	--
80	17.34	174.82	12.96	6.18	17.34	5.60	11.77	29.11	18.39	12.49	49.76	70.78	.560	--	.582	--	.753
98	17.11	309.50	5.32	2.48	10.03	4.14	6.62	16.65	17.62	11.63	42.11	162.04	.664	1.60	--	.443	.719
91	17.10	206.23	9.89	3.52	15.55	6.71	10.23	25.78	18.27	12.01	47.59	99.63	.660	--	.687	.512 .770	--
101	16.68	219.32	4.68	2.73	8.07	4.32	7.05	15.12	11.40	9.94	49.87	184.30	.639	--	--	.423	--
79	16.32	66.29	12.63	5.46	50.94	6.51	11.96	62.90	27.78	6.53	71.72	27.62	.605	--	.357	--	--
73	16.15	61.84	19.17	5.65	19.95	7.54	13.19	33.14	17.29	11.43	54.38	77.30	.660	3.74	.573	--	--
45	15.72	625.64	7.25	4.04	8.28	3.58	7.62	15.90	10.70	9.85	51.30	160.65	.623	--	--	.429 .512	.836
27	15.49	136.62	3.40	3.66	9.59	4.09	7.75	17.34	14.49	11.71	42.37	166.61	.656	.28	.484	--	--
62	15.26	153.24	14.57	3.99	8.41	4.11	8.10	16.51	11.48	11.05	54.41	180.28	.654	--	--	.657	--
47	14.13	175.73	10.72	2.13	5.78	4.97	7.10	12.88	10.70	13.16	45.27	270.35	.662	--	--	--	.779
89	13.95	195.17	12.75	3.31	10.37	6.82	10.13	20.50	14.43	14.09	54.08	151.29	.663	2.64	--	.906 1.216	--
93	13.31	460.73	9.88	3.90	17.09	5.93	9.84	26.93	19.06	10.97	55.44	99.30	.729	.88	--	.991 .651	.717
49	13.12	310.85	11.10	3.17	7.85	4.61	7.77	15.62	12.31	12.19	44.52	172.69	.576	--	--	--	.888 .818
96	12.49	261.23	9.27	3.50	14.58	5.24	8.74	23.32	21.27	12.75	60.08	101.25	.669	1.27	--	.828	.900
67	11.65	158.57	9.70	2.56	10.97	6.78	9.34	20.31	9.40	8.00	69.68	140.33	.660	--	--	.626 .953	1.216 .988
100	11.35	152.22	4.11	3.44	8.55	4.57	8.01	16.56	16.75	6.59	52.66	171.03	.598	17.88	--	.671	--
90	10.39	257.35	3.31	3.14	15.85	5.62	8.76	24.61	26.56	14.67	56.97	106.78	.710	.27	.672	.775	--
97	9.21	133.92	7.99	4.37	12.95	5.44	9.81	22.76	15.73	11.92	59.03	119.57	.660	--	--	.642	--
95	8.61	290.34	5.93	3.49	12.86	5.50	8.99	21.85	27.07	18.92	65.28	107.53	.579	.27	--	--	.962
High	25.33	625.64	19.17	6.18	50.94	7.54	13.19	62.90	27.78	18.92	71.72	270.35	.795	17.88	.825	1.216	1.216
Low	8.61	61.84	3.31	1.88	5.78	3.56	5.62	12.88	8.67	6.49	38.55	27.62	.560	.27	.344	.423	.525
Av.	15.30	252.28	8.76	3.55	13.21	4.82	8.19	19.81	16.08	11.01	52.87	139.11	.660	--	.566	.676	.831

49.15

Table 22.--Factors helping to analyze the farm business on 24 farms
Champaign-Piatt Counties--1945 (Farms ranked in order of rate earned on investment)

Farm No.	Rate earned	Labor and management wage	Acres in farm	Hours man labor performed on farm			Man equivalent per farm	Percent hired labor is of total labor cost	G.F.E. per hour prod. labor	Investment per acre in prod. L. S.	Livestock income per acre	Returns per $100 invested in productive L. S.	Returns per $100 feed fed				Feed fed per acre to prod. L. S.
				By operator	By hired labor	Total for farm							Cattle	Swine	Poultry	All L.S.	
56	25.53	$20 805.66	418.24	1 694	3 258	5 952	2.57	48.2	$.313	$20.93	$36.99	$176.72	$110	$162	$124	$121	$30.57
15	19.72	13 024.43	344.23	2 314	2 706	5 195	2.23	53.6	.381	9.54	32.06	336.08	209	156	149	164	19.53
92	19.70	18 391.22	563.40	2 407	2 070	5 792	2.49	43.8	.256	2.22	4.02	181.20	104	95	154	117	3.43
74	19.15	12 177.53	353.30	2 106	2 229	5 727	2.46	36.7	.246	8.85	20.64	233.27	158	120	158	134	15.40
83	17.83	5 560.15	189.87	2 157	41	2 724	1.17	1.1	.289	8.35	26.66	319.33	166	161	142	161	16.53
80	17.34	7 478.12	202.49	2 393	3 324	5 738	2.47	47.0	.307	10.94	23.38	213.63	164	95	129	138	17.00
98	17.11	9 748.29	329.22	3 570	816	4 444	1.91	17.8	.313	4.44	10.59	238.64	156	137	181	151	6.99
91	17.10	8 060.63	241.16	2 248	2 520	4 818	2.07	52.2	.263	10.85	29.08	268.11	163	155	167	160	18.22
101	16.68	7 080.91	237.18	2 534	214	2 758	1.19	4.8	.241	11.66	15.60	133.82	109	102	103	104	15.03
79	16.32	4 960.37	99.60	3 904	679	5 578	2.40	4.2	.109	27.40	91.39	333.59	211	186	141	199	46.00
73	16.15	3 475.83	79.07	1 852	--	1 861	.80	--	.387	26.60	64.85	243.78	159	155	286	179	36.22
45	15.72	19 428.15	680.45	2 148	6 310	9 069	3.90	64.7	.510	8.32	17.15	206.04	158	117	310	154	11.13
27	15.49	4 821.19	158.47	1 707	80	1 898	.82	3.1	.330	2.12	4.07	191.77	271	76	216	198	2.05
62	15.26	4 620.72	200.92	1 752	181	1 972	.85	8.3	.586	9.08	11.92	131.23	185	140	154	164	7.27
47	14.13	4 121.77	201.48	1 140	--	1 518	.65	.3	.606	3.22	6.48	201.05	136	--	106	113	5.75
89	13.95	6 529.51	235.95	2 521	170	2 991	1.29	5.6	.432	8.70	15.86	182.43	97	111	254	144	11.05
93	13.31	14 090.64	536.87	3 472	6 345	10 793	4.64	62.6	.340	14.23	23.12	162.48	162	108	207	148	15.59
49	13.12	7 095.77	347.73	2 365	1 700	4 181	1.80	32.3	.418	12.22	13.65	111.66	115	91	209	112	12.15
96	12.49	6 032.50	304.48	2 917	1 401	5 996	2.58	18.3	.151	8.24	30.49	369.86	191	178	169	182	16.76
67	11.65	3 831.25	192.77	1 422	--	2 636	1.13	--	.441	15.08	29.51	195.69	129	92	--	118	25.01
100	11.35	2 711.32	157.37	830	1 070	2 063	.89	44.8	.291	3.54	5.17	146.15	55	--	260	82	6.30
90	10.39	5 474.82	330.28	3 096	757	5 613	2.41	18.9	.267	17.47	20.35	116.45	110	146	168	130	15.61
97	9.21	3 246.03	158.27	2 534	4	2 594	1.12	.3	.697	5.58	19.59	351.29	232	164	148	172	11.41
95	8.61	2 927.40	317.53	1 416	2 424	6 272	2.70	30.1	.270	5.27	9.85	186.97	115	146	216	131	7.54
High	25.33	20 805.66	680.45	3 904	6 345	10 793	4.64	64.7	.697	27.40	91.39	369.86	271	186	310	199	46.00
Low	8.61	2 711.32	79.07	830	4	1 518	.65	.3	.109	2.12	4.02	111.66	55	76	103	82	2.05
Av.	15.30	8 153.92	286.68	2 271	1 596	4 508	1.94	33.0	.352	10.62	23.44	217.97	153	132	180	145	15.52

Description of Table 22 (page 50)

Labor and management wage is the income left to pay for the labor and management of the operator after all other expenditures and interest at 5 percent on the total farm investment have been deducted from gross income.

Hours of man labor performed per farm is the time devoted to the farm business by the operator, members of his family, and hired labor. The figure for operator's labor decreased 240 hours in 1945 over 1943.

Man equivalent per farm represents the average number of men used on the farm and assumes that each man worked 2,271 hours per year, the average number of hours for the 24 operators.

The percentage of total labor cost which hired labor cost represents indicates the extent to which the farm is dependent on hired labor. Hired labor was 33 percent of the total labor cost in 1945 compared with 50 percent in 1937.

General farm expense includes miscellaneous expenditures, such as taxes on land in the farmstead, farm share of auto expense, farm bureau dues, farm papers, and other expenditures which cannot be allocated directly to any productive farm enterprise. It also includes labor spent in cutting hedgerows, cutting weeds in fencerows, etc. The costs of these general or overhead items are grouped together and distributed to the crop and livestock enterprises on the basis of amounts of man labor used.

Investment per acre in productive livestock is the average of the beginning and closing inventories of livestock other than horses reduced to an acre basis.

Livestock income per acre and returns per $100 invested in productive livestock vary with the kind of livestock; dairy cattle, hogs, and poultry usually show a more rapid turnover and higher relative returns per $100 invested than do beef herds and sheep.

Returns per $100 feed fed are a good measure of livestock efficiency, although they obviously are affected by the relative prices of livestock and feed. To be profitable, livestock should pay more than market prices for feed, although some feeds used have little or no sales value.

Feed fed per acre to productive livestock indicates the intensity of livestock production on a farm.

Farm Efficiency Chart (page 52)

Of the 52 comparisons shown in Tables 20, 21, and 22, seventeen have been selected as a basis for a farm efficiency chart. When the position of each farm with regard to these 17 factors is indicated on this chart, the farm operator can determine which phases of his business are most efficient and which ones need to be improved.

FARM EFFICIENCY CHART

Champaign-Piatt Counties--1945

The numbers between the lines across the middle of the page are the approximate averages for the 24 farms for the factors named at the top of the columns. A line drawn across each column at the number for your farm shows your efficiency compared with that of the other farmers.

	Crops						Livestock			Labor and power cost per hour						
	Corn		Oats		Soybeans						Tractor horsepower					
Rate earned on investment	Yield per acre	Cost per bu.	Yield per acre	Cost per bu.	Yield per acre	Cost per bu.	Feed fed per acre	Income per acre	Returns per $100 feed fed	Man	9-16	16-21	21-30	Power and machinery cost per crop acre	Labor, power & machinery cost per crop acre	Size of farm
26.00	75	$.26	81	$ --	30	$ --	$37.00	$44.00	$ --	$ --	$ --	$ --	$ .48	$ --	$ --	700
24.50	73	.28	77	--	29	--	34.00	41.00	200	--	.33	.44	.53	--	--	640
23.00	71	.30	73	.16	28	--	31.00	38.00	190	.56	.37	.48	.58	--	--	580
21.50	69	.32	69	.19	27	.77	28.00	35.00	180	.58	.41	.52	.63	--	--	520
20.00	67	.34	65	.22	26	.82	25.00	32.00	170	.60	.45	.56	.68	5.00	11.00	460
18.50	65	.36	61	.25	25	.87	22.00	29.00	160	.62	.49	.60	.73	6.00	14.00	400
17.00	63	.38	57	.28	24	.92	19.00	26.00	150	.64	.53	.64	.78	7.00	17.00	340
15.30	61	.40	53	.31	23	.97	15.52	23.44	145	.66	.57	.68	.83	8.19	19.81	287
14.00	59	.42	49	.34	22	1.02	13.00	20.00	130	.68	.61	.72	.88	9.00	23.00	220
12.50	57	.44	45	.37	21	1.07	10.00	17.00	120	.70	.65	.76	.93	10.00	26.00	160
11.00	55	.46	41	.40	20	1.12	7.00	14.00	110	.72	.69	.80	.98	11.00	29.00	100
9.50	53	.48	37	.43	19	1.17	4.00	11.00	100	.74	.73	.84	1.03	12.00	32.00	40
8.00	51	.50	33	.47	18	1.22	1.00	8.00	90	.76	.77	.88	1.08	13.00	35.00	--
--	49	.52	29	.50	17	1.27	--	5.00	80	.78	.81	.92	1.13	14.00	38.00	--
--	47	--	--	.53	16	1.32	--	2.00	--	.80	.85	.96	1.18	--	42.00	--

.64

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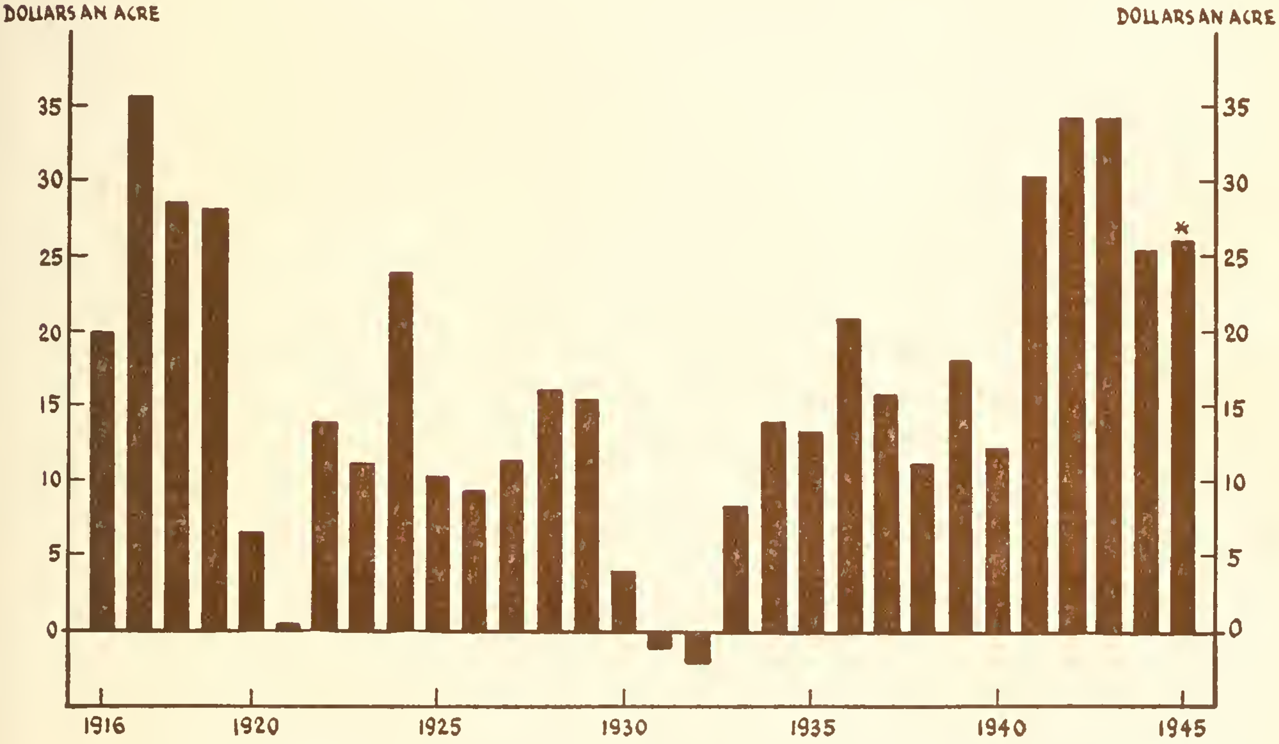
TWENTY-FIRST ANNUAL REPORT

OF THE

FARM BUREAU
FARM MANAGEMENT SERVICE
1945



** Estimate for 1945*

NET EARNINGS AN ACRE, EAST CENTRAL ILLINOIS ACCOUNTING FARMS, 1916-1945

Net farm earnings an acre from 1916 through 1945 varied from a gain of $35.51 in 1917 to a loss of $1.96 in 1932. Following World War I, earnings remained relatively high for almost two years, then dropped precipitously in 1920 and in 1921. For further information on long-time changes in earnings of Illinois accounting farms, see the inside back cover of this report. Net farm earnings when adjusted for inventory changes and with allowance for unpaid family labor are the amounts available to farmers to meet family living costs, interest, payments on debts, income taxes, and for savings.

DEPARTMENT OF AGRICULTURAL ECONOMICS, UNIVERSITY OF ILLINOIS
COLLEGE OF AGRICULTURE, EXTENSION SERVICE IN AGRICULTURE AND HOME ECONOMICS
COOPERATING WITH 53 COUNTY FARM BUREAUS

AE-2389 — May 1946

UNIVERSITY *of* ILLINOIS
COLLEGE *of* AGRICULTURE
AGRICULTURAL EXPERIMENT STATION
URBANA, ILLINOIS

DEPARTMENT *of*
AGRICULTURAL ECONOMICS

To Cooperators in the Farm Bureau
Farm Management Service:

The analysis of your business shown in this report is made from your 1945 farm account book record.

When "your farm" columns have been filled in and your farm located on the charts, the report will show how your farm earnings compare with other farms in your Farm Bureau Farm Management Service area, with other farms having the same source of income, and (for tenants) with other farms of the same size.

A careful study of the farm efficiency chart, after it is filled out for your farm, will show why your earnings were high, low, or medium compared with other farms.

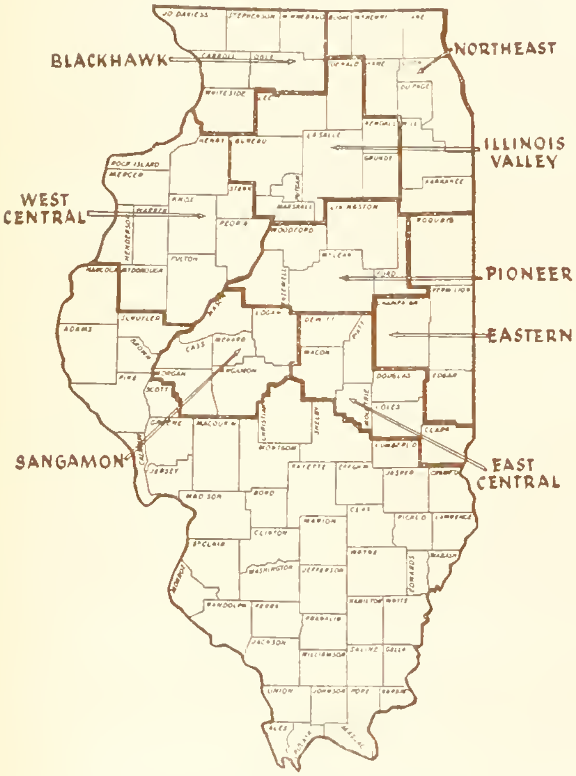
The value of the Farm Bureau Farm Management Service will show in increased earnings on your farm as you learn from your fieldmen and others how those farmers who succeed best have planned their farming operations and as you apply their methods to your farm. Another thing that may lead to increased earning power of some of you is to increase the size of the business at some points where several years' records show that you excel.

We hope for you and your family that a large part of your wartime earnings will be used to improve your home and family life, provide for security in your later years, and for permanent land improvement.

Sincerely yours,

M. L. MOSHER, Professor,
Farm Management
Extension

H. C. M. CASE
Head, Department
of Agricultural
Economics



THE EIGHT FARM BUREAU FARM MANAGEMENT SERVICE AREAS OPERATING IN 1945.

Area	*Fieldman*
Northeast	H. L. Jepson
Illinois Valley	M. P. Gehlbach
Blackhawk	W. D. Buddemeier
West Central	B. E. King
Pioneer	W. A. Herrington and Myron W. Madison
Eastern	T. E. Myers
East Central	B. L. McNabb
Sangamon	C. H. Krusa

TWENTY-FIRST ANNUAL REPORT
# of the
FARM BUREAU FARM MANAGEMENT SERVICE
FOR THE YEAR 1945

M. .L. Mosher and F. J. Reiss[1]

Net farm earnings of Farm Bureau Farm Management Service farms were slightly higher in 1945 than in 1944[2]. The year-to-year earnings shown in the charts on the front and back cover pages are of farms in the Pioneer Farm Bureau Farm Management Service area.

The average net earnings per acre were higher in 1945 than in 1944 in three of the five areas in which the project was under way in 1944, as shown in Table 1-A on this page. Average farm earnings during the five years 1941-1945 were about double those of the preceding five years. The differences in net earnings between areas are due in part to differences in the productivity of all land in farms.

Table 1-A.--Year-by-Year Net Farm Earnings per Acre

Area	1940	1941	1942	1943	1944	1945
Northeast	$ --	$ --	$ 26.33	$ 26.33	$ 19.81	$ 23.28
Blackhawk	--	--	--	25.91	19.83	20.43
Illinois Valley	$ 13.20	$ 31.09	$ 38.54	36.68	27.62	27.12
West Central	12.33	28.31	33.78	31.25	22.21	20.35
Pioneer	12.17	30.28	34.31	34.16	24.80	25.95
Sangamon	--	--	--	--	--	21.61
East Central	--	--	--	--	--	23.71
Eastern	--	--	--	--	--	23.85

Only data considered most essential in helping each cooperator know how much and why his farm earnings vary from other similar farms in his area are included in this report. All footnotes to tables and the explanations on pages 18, 19, and 20 should be studies carefully in order to understand the analysis of each farm business.

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[1] J. B. Andrews, while not a co-author of this report, has assisted with the collection of the data in his position as director of the field work of the project since September 1, 1945. The fieldmen listed on the opposite page collected the data used in this report. H. C. M.Case, Head of the Department of Agricultural Economics, gives general supervision to the project. The project is under the direct supervision of M. L. Mosher. F. J. Reiss supervised the clerical work and helped prepare the report.

[2] Records of 1,657 farms were included in this report. About 200 other records were kept but were not used because the farms were unusual or the books were received late.

Table 1.--Cash Receipts and Cash Expenses

Item	Page in account book	Your farm: Total farm	Your farm: Operator's share	Your farm: Landlord's share	Northeast 180 farms
Cash receipts					
Land improvements..............................	3	$	$	$	$ 4
Farm buildings.................................	5				43
Horses...	13				17
Productive livestock: Cattle ____________.	7				6636
Cattle ____________.	7a				--
Dairy sales.......	9				4557
Hogs..............	11				2680
Sheep.............	13				85
Poultry...........	15				261
Egg sales.........	16				516
Total productive livestock..............	--	( )	( )	( )	(14735)
Feed, grain, and seeds......................	27				3085
Machinery and equipment: Sales..............	38				163
Use............	38				209
Auto (farm share): Sales....................	39				13
Use.....................	38				4
AAA receipts................................	28				80
Labor off the farm..........................	38				67
Miscellaneous receipts......................	43				13
Cash rent...................................	43				--
Total cash receipts....................	45	$	$	$	$ 18433
Cash expenses					
Land improvements: Maintenance..............	3	$	$	$	$ 302
New capital..........	3				269
Farm buildings: Maintenance.................	5				238
New capital.............	5				454
Horses......................................	13				16
Productive livestock: Cattle ____________.	7				3856
Cattle ____________.	7a				--
Hogs..............	11				406
Sheep.............	13				61
Poultry...........	15				100
Total productive livestock..................	--	( )	( )	( )	(4423)
Feed and grain..............................	24c				2143
Seed purchases and crop expense.............	23				471
Machinery and equipment: Operating expense	37				1363
New capital....	37				927
Auto (farm share): Operating expense....	37				139
New capital.........	39				11
Livestock expense...........................	17				189
Hired labor.................................	41				1160
Taxes.......................................	42				353
Miscellaneous expenses......................	42				107
Cash rent...................................	43				--
Total cash expenses.....................	45	$	$	$	$ 12565
Cash balance................................	45	$	$	$	$ 5868
Total inventory changes (see Table 4).....	45				493
Farm products used in household...........	19				443
Receipts less expenses (total of above)[a]	45	$	$	$	$ 6804

[a] The "receipts less expenses" is a bookkeeping name for the net earnings for the farm and farm family and operator's labor. For the "total farm" on rented farms, it includes both the tenant's (operator's) and landlord's shares of earnings.

Table 1.--Cash Receipts and Cash Expenses

Farm Bureau Farm Management Service Area							
Black Hawk 195 farms	Ill. Valley 208 farms	W. Central 209 farms	Pioneer 315 farms	Eastern 182 farms	E. Central 187 farms	Sangamon 181 farms	All areas 1657 farms
$ 7	$ 1	$ 5	$ 1	$ 2	$ 3	$ 3	$ 3
7	37	13	28	5	8	17	20
22	23	23	42	20	25	28	26
3941	6346	5740	3035	2440	2141	3348	4158
--	--	--	--	--	--	--	--
3222	1457	932	1163	1082	755	610	1666
4136	6639	7760	4305	3120	2667	4372	4529
165	382	381	362	162	119	123	238
257	214	218	355	256	273	211	263
487	432	416	676	412	399	426	486
(12208)	(15470)	(15447)	(9896)	7472)	(6354)	(9090)	(11340)
1362	5295	3808	6592	7147	7902	5942	5219
181	231	159	183	155	152	131	171
143	269	225	248	297	326	254	246
2	11	12	2	3	5	8	7
6	8	6	6	6	3	2	5
105	119	129	119	134	113	119	115
31	77	46	50	70	56	56	56
12	21	87	14	11	23	15	25
--	--	--	--	--	--	--	--
$ 14086	$ 21562	$ 19960	$ 17181	$ 15322	$ 14970	$ 15665	$ 17233
$ 170	$ 201	$ 113	$ 120	$ 257	$ 138	$ 125	$ 172
173	389	248	426	350	358	354	329
208	265	191	176	171	116	132	187
297	343	295	242	270	161	235	284
23	24	15	19	10	16	19	18
1545	2531	2397	1467	922	877	1506	1864
--	--	--	--	--	--	--	--
391	466	434	384	321	290	386	387
21	213	236	239	305	86	83	163
77	68	57	94	69	69	55	75
(2034)	(3278)	(3124)	(2184)	(1617)	(1322)	(2030)	(2489)
1681	2638	2865	2103	1580	1172	2202	2069
307	527	469	459	440	423	469	447
990	1448	1397	1380	1488	1473	1421	1370
746	865	932	906	995	746	881	877
147	183	168	173	162	153	164	162
15	20	19	15	9	13	14	15
162	178	169	139	109	102	125	147
690	1023	1119	948	944	787	831	940
292	422	483	502	515	499	502	450
80	98	112	93	99	98	99	97
--	--	--	--	--	--	--	--
$ 8015	$ 11902	$ 11719	$ 9885	$ 9016	$ 7577	$ 9603	$ 10053
$ 6071	$ 9660	$ 8241	$ 7296	$ 6306	$ 7393	$ 6062	$ 7180
-341	-876	-1363	887	1494	998	1937	388
423	453	470	428	438	459	454	445
$ 6153	$ 9237	$ 7348	$ 8611	$ 8238	$ 8850	$ 8453	$ 8013

Table 2.--Farm Earnings and Related Items

Item	Page in account book	Your farm	Area	
			Northeast 180 farms	Black Hawk 195 farms
Capital investments - land	44	$____	$22 067	$15 026
Land improvements	44	____	1 102	850
Farm buildings	44	____	8 456	6 719
Operating capital	44	____	15 465	13 307
Total capital investments	44	____	47 090	35 902
Total gross receipts	44	____	13 266	11 239
Total gross expenses	45	____	8 132	6 916
Net farm earnings	45	____	5 134	4 323
Inventory changes				
Land improvements	2	$____	$ 82	$ 35
Farm buildings	4	____	-38	-12
Horses	12	____	-46	-38
All productive livestock	6-14	____	28	-87
Feed, grain, and seeds	22	____	393	-350
Machinery and equipment	32	____	141	161
Auto (farm share)	39	____	-67	-50
Total inventory change	45	____	493	-341
Cash balance	45	____	5 868	6 071
Farm products used in household	19	____	443	423
Total farm and family earnings - (receipts less expenses) a/	45	____	6 804	6 153
Family labor	45	____	344	480
Returns for labor, capital, management	45	____	6 460	5 673
Operator's labor	45	____	1 326	1 350
Returns for capital and management	45	____	5 134	4 323
Rate earned on capital investments	45	____%	10.90%	12.04%
Interest on investment at 5%	45	$____	$ 2 354	$ 1 795
Labor and management earnings	45	____	4 106	3 878
Average size of farm - total acres	1	____	221	212
Farm capital and earnings per acre				
Total capital investments	--	$____	$213.56	$169.74
Gross earnings	--	____	60.16	53.13
Gross expenses	--	____	36.88	32.70
Net earnings	--	____	23.28	20.43
Tenant's and landlord's earnings				
Number of rented farms		____	82	67
Average size of rented farms - acres	1	____	219	204
Tenant's share				
Capital - tenant's total investment	44	$____	$10 894	$ 8 891
Returns for labor, capital, management	45	____	3 682	3 506
Five percent of tenant's capital	45	____	545	445
Tenant's labor and management earnings	45	____	3 137	3 061
Landlord's share				
Capital - landlord's total investment b/	44	$____	$37 952	$28 415
Returns for capital and management	45	____	2 796	2 656
Landlord's rate earned on capital b/	45	____%	7.37%	9.35%

a/ The "receipts less expenses" is a bookkeeping name for the total net earnings for the farm and farm family and operator's labor. For the "total farm" on rented farms, it includes both the tenant's (operator's) and landlord's share of earnings.

b/ The land investments and the landlord's rate earned on capital are based on prewar land values.

Table 2.--Farm Earnings and Related Items

Farm Bureau Farm Management Service Area						Average of all areas 1657 farms
Ill. Valley 208 farms	W.Central 209 farms	Pioneer 315 farms	Eastern 182 farms	E.Central 187 farms	Sangamon 181 farms	
$32 658	$26 703	$33 741	$32 786	$35 285	$32 640	$29 196
1 319	1 175	1 149	1 095	1 052	964	1 096
7 299	5 284	5 389	5 295	4 127	4 963	5 906
18 662	17 722	14 799	12 570	11 681	12 376	14 688
59 938	50 884	55 078	51 746	52 145	50 943	50 886
15 489	14 470	13 681	13 055	13 175	13 077	13 483
8 119	8 851	6 710	6 405	6 064	6 457	7 202
7 370	5 619	6 971	6 650	7 111	6 620	6 281
$ 151	$ 40	$ 243	$ 170	$ 186	$ 181	$ 142
-64	-41	-65	-38	-57	-42	-46
-34	-47	-47	-30	-19	-42	-39
-262	-65	462	442	169	189	128
-682	-1 317	194	731	775	1 534	122
81	132	159	273	2	173	140
-66	-65	-59	-54	-58	-56	-59
-876	-1 363	887	1 494	998	1 937	388
9 660	8 241	7 296	6 306	7 393	6 062	7 180
453	470	428	438	459	454	445
9 237	7 348	8 611	8 238	8 850	8 453	8 013
548	405	301	239	333	457	385
8 689	6 943	8 310	7 999	8 517	7 996	7 628
1 319	1 324	1 339	1 349	1 406	1 376	1 347
7 370	5 619	6 971	6 650	7 111	6 620	6 281
12.30%	11.04%	12.66%	12.85%	13.64%	12.99%	12.34%
$ 2 997	$ 2 544	$ 2 754	$ 2 587	$ 2 607	$ 2 547	$ 2 544
5 692	4 399	5 556	5 412	5 910	5 449	5 084
272	276	269	279	300	306	267
$220.57	$184.36	$205.04	$185.56	$173.83	$166.31	$190.74
57.00	52.43	50.93	46.82	43.93	42.69	50.54
29.88	32.07	24.98	22.97	20.22	21.08	26.99
27.12	20.36	25.95	23.85	23.71	21.61	23.55
108	75	160	84	88	77	741
266	259	260	266	269	294	257
$11 777	$12 317	$10 381	$ 8 857	$ 8 500	$ 8 908	$10 153
4 602	3 739	4 241	3 925	4 232	4 110	4 064
589	616	519	443	425	445	508
4 013	3 123	3 722	3 482	3 807	3 665	3 556
$45 774	$36 821	$40 921	$40 704	$40 621	$38 933	$39 487
4 170	3 418	3 936	3 936	4 545	4 031	3 758
9.11%	9.28%	9.62%	9.67%	11.19%	10.35%	9.52%

Table 3.--Some Factors That Affect Farm Earnings and That Are Used on the Farm Efficiency Chart on the Opposite Page

Item	Column 1	Column 2	Percent your farm is of average (% Col. 1 is of 2)	Total advantage on your farm[g]	Total disadvantage on your farm[g]
	Your return per $100 capital	Average returns per $100 capital[a]			
Returns for capital and management	$____	$____	____%	$____	$____
Gross earnings factors					
Crop yields	Your yields	Average yields[b]			
Corn	____	____	____%	____	____
Oats	____	____	____%	____	____
Wheat	____	____	____%	____	____
Soybeans	____	____	____%	____	____
Livestock returns	Your returns	Average returns[c]			
Cattle - ____	$____	$____	____%	____	____
Cattle - ____	____	____	____%	____	____
Hogs	____	____	____%	____	____
Sheep	____	____	____%	____	____
Poultry	____	____	____%	____	____
All livestock	$____	$____	____%	____	____
Cost factors	Your costs	Average costs			
Labor	$____	$____[d]	____%	____	____
Machinery and power	____	____[e]	____%	____	____
Land improvements	____	____[f]	Not all on the farm efficiency chart on the opposite page	____	____
Buildings	____	____[f]		____	____
Organization of the farm	Your farm	Average of your area			
Size of farm - total acres	____	____			
Percent of farm tillable	____%	____%			
Percent of tillable land in biennial and perennial legumes	____%	____%			
Feed per acre to prod. livestock	$____	$____			
Total advantages and disadvantages				$____	$____
Net total advantage or disadvantage				____	____

a/ This is the average return per $100 capital (rate earned) in your Farm Bureau Farm Management Service area.

b/ These are the average yields on soils similar to yours in your area. See page 20.

c/ These are the average returns for your area from the same value of feed that you fed to your kinds of livestock. See pages 14 and 19.

d/ These are the approximately average labor costs of farms in your area that had the same amounts of work on crops and on livestock that you had on your farm. See pages 16 and 17.

e/ These are the approximately average machinery and power cost of farms in your area that had little or no income from custom work and that had the same amounts of work on crops and livestock that you had on your farm. See pages 16 and 17.

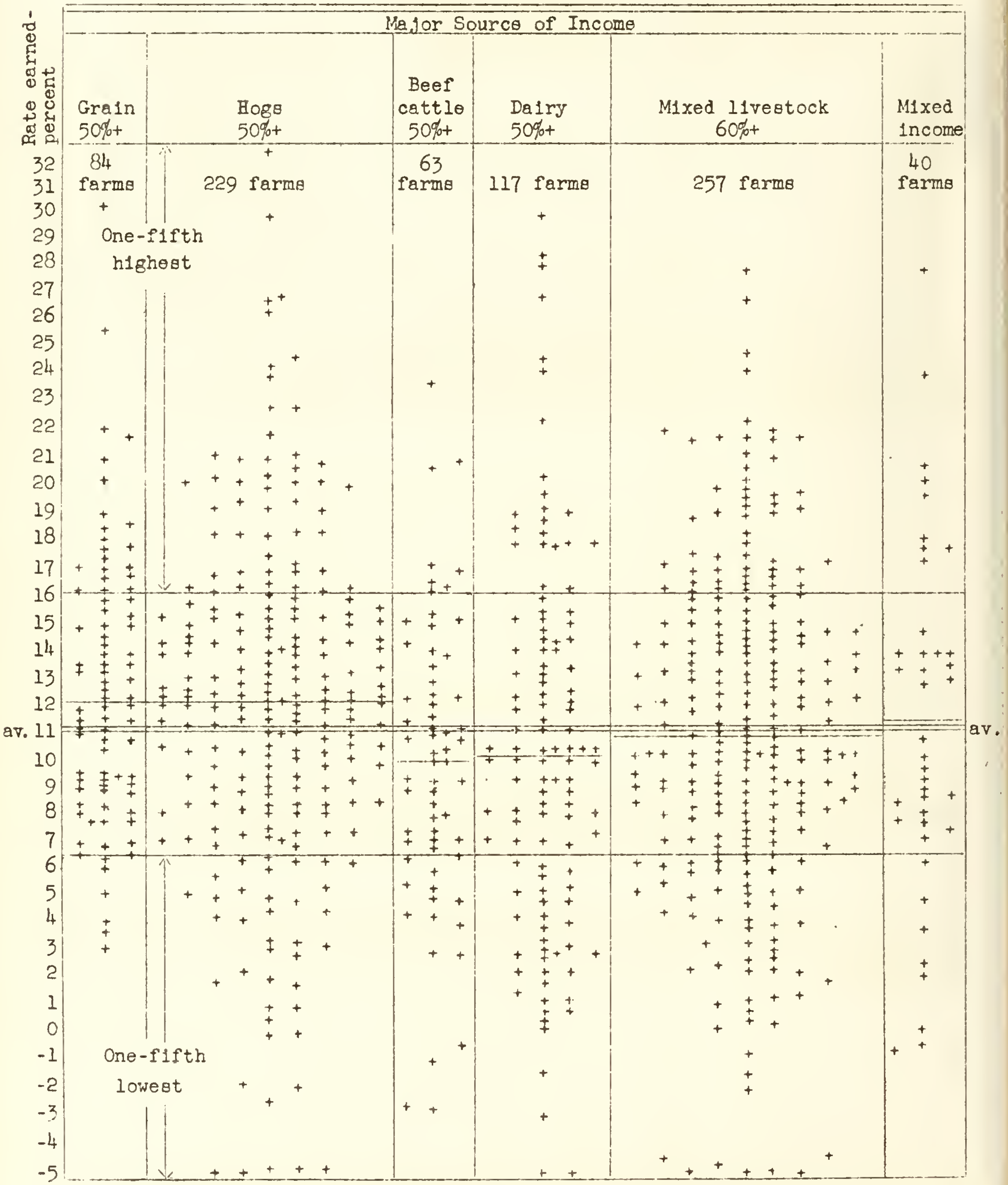
f/ The approximately average land improvements or building cost for farms the size of yours in your area may be calculated by multiplying the cost per acre for your area (See pages 16 and 17) by the total acres in your farm.

g/ Your advantages or disadvantages as compared with the average farm in your area may be calculated from data included in this report. Fieldmen will assist cooperators make such calculations.

Chart 1.--Farm Efficiency Chart

Net farm earnings--percent of average returns per $100 capital	Gross earnings factors										Cost factors		Soil improvement factors		Size of farms--total acres
	Crop yields--percent of average on similar soils				Livestock returns--percent of average from same feed										
	Corn	Oats	Wheat	Soybeans	Cattle	Cattle	Hogs	Sheep	Poultry	All livestock	Labor--percent of average of similar farms	Machinery--percent of average of similar farms	Percent of tillable land in biennial and perennial legumes	Feed per acre to productive livestock--dollars	
200	145	180	170	180	185	185	170	200	240	140	60	50			
The best one-fifth of the farms in each factor comes between this line and the next line below.															
130	113	120	130	120	120	120	115	140	125	109	85	85			
100	100	100	100	100	100	100	100	100	100	100	100	100			
The average of the farms in each factor comes to this line.															
70	87	79	71	76	83	83	87	64	78	90	115	120			
The lowest one-fifth of the farms in each factor comes between this line and the bottom line.															
-30	50	30	35	20	40	40	50	20	20	60	160	180			

Chart 2.--Source of Farm Income as Related to Rate Earned on Capital[a]
Northeast, Blackhawk, Illinois Valley, and West Central Areas



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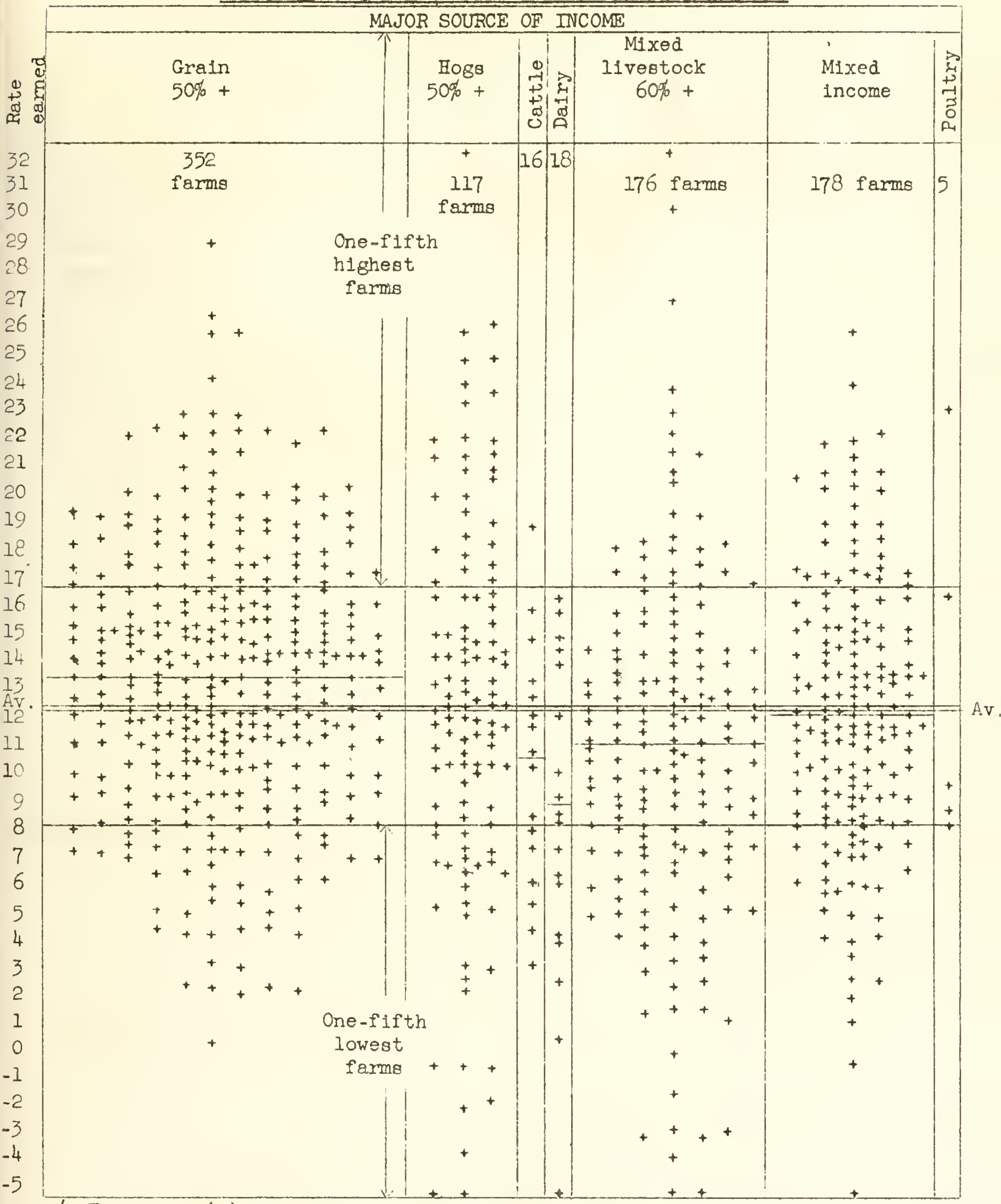
a/ Each sign (+) represents a farm, as farms are distributed from the bottom to the top of the chart according to the rate earned on capital.

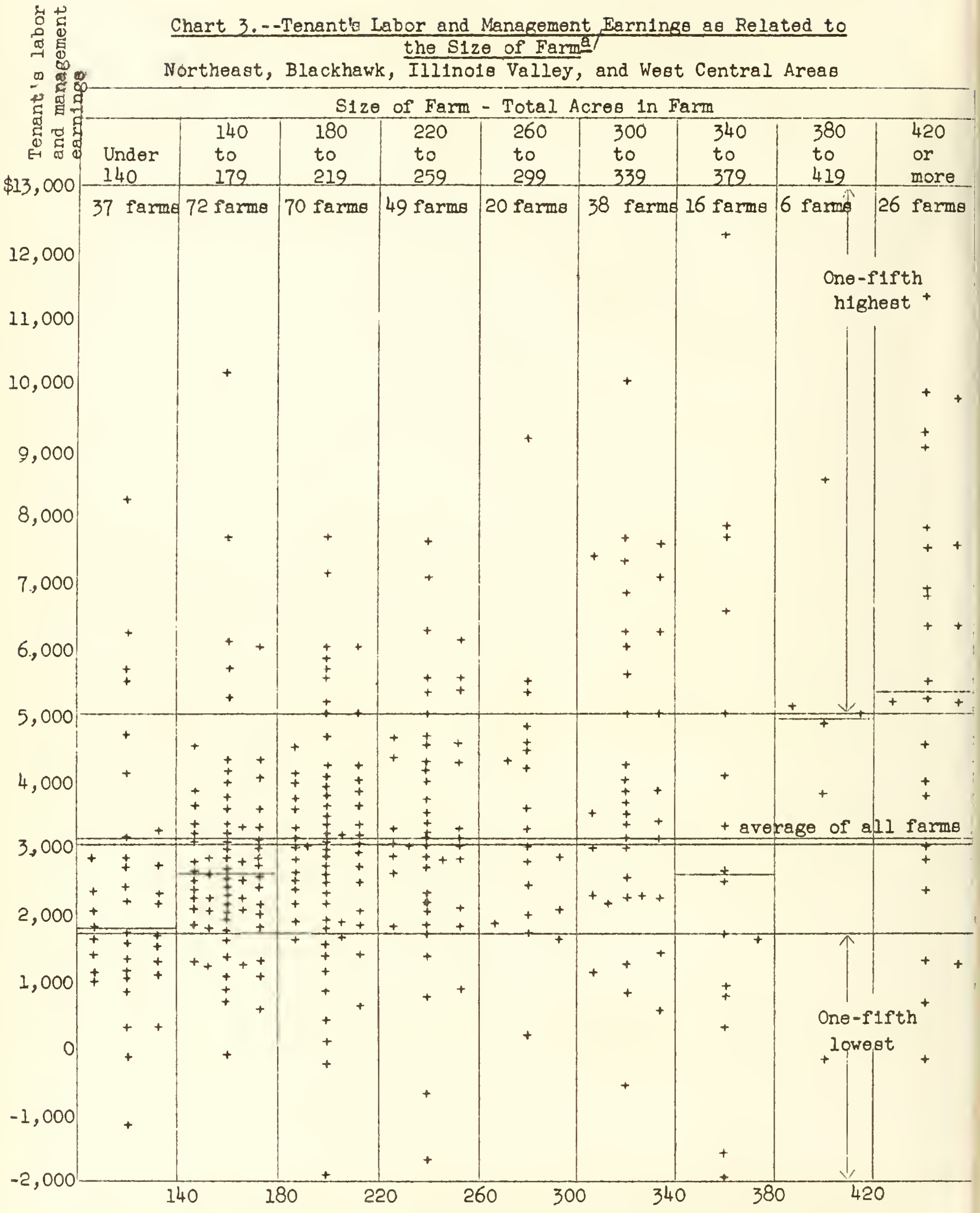
Chart 2.--Source of Farm Income as Related to Rate Earned on Capital[a]
Pioneer, Sangamon, East Central and Eastern Areas



[a] Each sign (+) represents a farm as farms were distributed from the bottom to the top of the chart according to the rate earned on capital.

Chart 3.--Tenant's Labor and Management Earnings as Related to the Size of Farm[a]/

Northeast, Blackhawk, Illinois Valley, and West Central Areas



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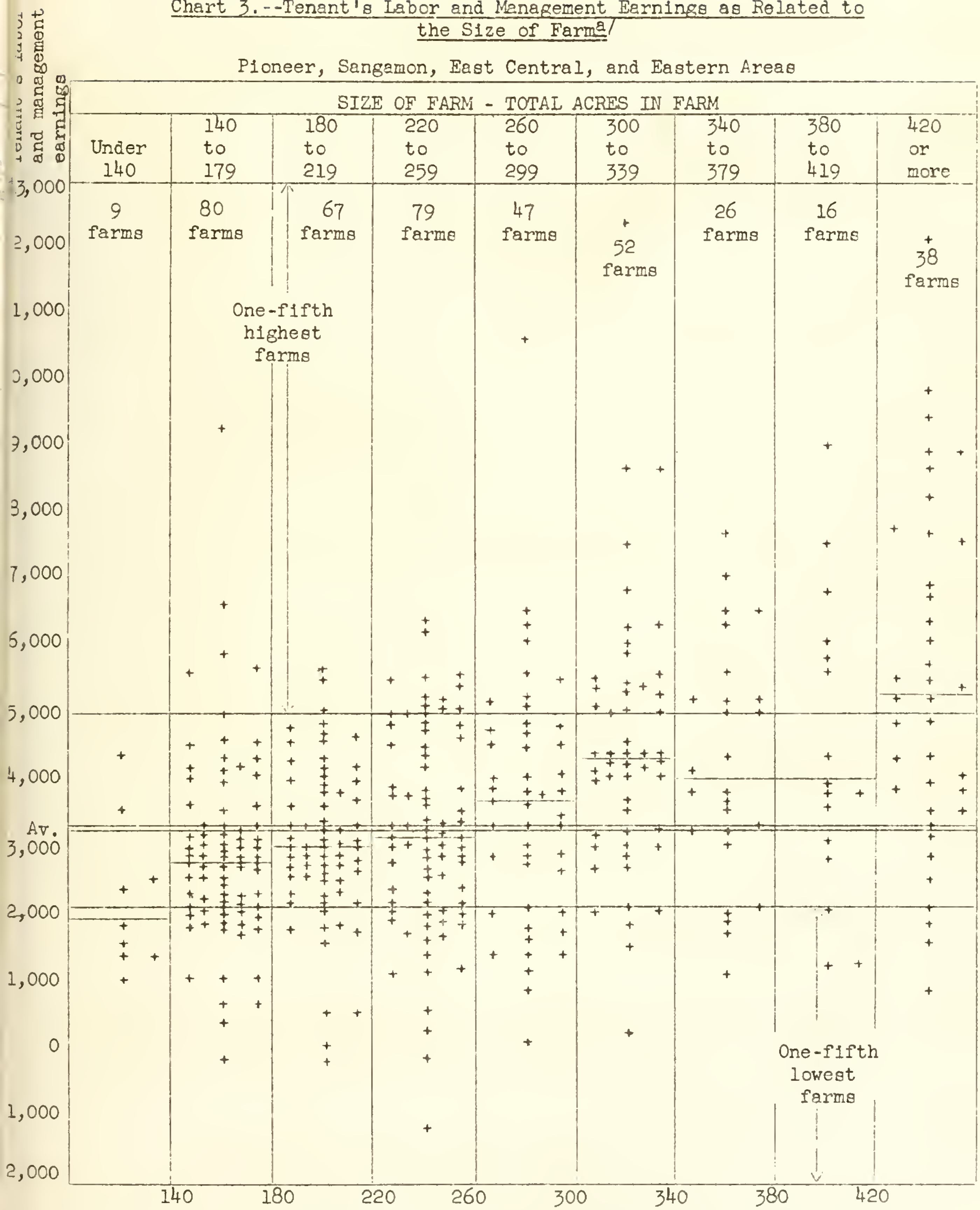
a/ Each sign (+) represents a rented farm as farms were distributed from the bottom to the top of the chart according to the tenant's labor and management earnings.

Chart 3.--Tenant's Labor and Management Earnings as Related to the Size of Farm[a]

Pioneer, Sangamon, East Central, and Eastern Areas



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a/ Each sign (+) represents a rented farm as farms were distributed from the bottom to the top of the chart according to the tenant's labor and management earnings.

Table 4.--Land Use, Crop Yields, and Source of Farm Earnings

Item	Page in account book	Your farm	Area	
			Northeast 180 farms	Black Hawk 195 farms
Land use				
Size of farm - total acres..............	21		221	212
Percent of farm tillable................	--		86	74
Percent of tillable land in:a/				
Corn for grain.........................	20		36	34
Oats...................................	20		22	24
Wheat..................................	20		1	1
Soybeans...............................	20		9	2
Barley.................................	20		--	--
Other grain - ____________..........	20		--	--
Total grain.........................	--		68	61
Corn for silage........................	20		6	4
Hay....................................	20		14	19
Other crops - ____________..........	20		1	1
Pasture................................	21		11	15
Hay and pasture........................	20,21		25	34
Biennial and perennial legumes.........	20,21		21	30
First year sweet clover plowed for corn	21		1	1
Crop yields				
Corn - bushels per acre................	20		51	49
Oats - bushels per acre................	20		62	60
Wheat - bushels per acre...............	20		31	25
Soybeans - bushels per acre............	20		23	21
Silage (corn) - tons per acre..........	20		10.4	8.7
Hay - tons per acreb/..................	20		2.7	2.5
Pasture - pasture days per acrec/......	--		178	161
Source of farm earnings				
Percent of total gross receipts from:d/				
Cattle.................................	44		21	20
Dairy products sales...................	44		35	29
Hogs...................................	44		18	35
Sheep..................................	44		--	--
Poultry and eggs.......................	44		5	6
Total productive livestock...........	44		79	90
Farm products used in household........	44		3	4
Feed, grain, and seeds.................	44		17	5
AAA receipts...........................	44		1	1
Miscellaneous..........................	44		--	--

a/ The percentages are calculated from the acreages given on pages 20 and 21 of the Farm Account Book. The total tillable land used in this report is obtained from the Farm Account Book by subtracting the land in "Farmstead, roads, lanes, etc." from the "Total Improved Land."

b/ The yield of hay shown in the records includes only harvested hay. It does not include second and/or third cuttings that are pastured on many farms.

c/ The yield of pasture is obtained by dividing the total pasture days obtained from the tillable land by the total acres of tillable land in pasture: thus, the land devoted entirely to pasture receives credit also for fall pasture on hay land, small grain stubble, and cornstalk fields.

d/ The percentages are calculated from the total farm values on page 44 of the Farm Account Book.

Table 4.--Land Use, Crop Yields, and Source of Farm Earnings

Farm Bureau Farm Management Service Area						Average of all areas 1657 farms
Ill. Valley 208 farms	W.Central 209 farms	Pioneer 315 farms	Eastern 182 farms	E.Central 187 farms	Sangamon 181 farms	
272	276	269	269	300	306	267
86	80	91	91	88	86	86
44	42	43	36	34	33	39
23	19	21	14	11	12	18
1	1	1	3	3	7	2
8	11	14	26	32	27	17
--	--	--	--	--	--	--
--	--	--	--	--	1	--
76	73	79	79	80	80	76
1	1	--	--	--	--	1
10	11	8	7	7	6	9
1	1	1	3	1	1	1
12	14	12	11	12	13	13
22	25	20	18	19	19	22
19	19	16	13	12	9	17
3	2	2	2	1	1	2
54	49	55	56	58	58	54
62	50	51	48	52	52	55
28	26	26	26	23	20	23
26	22	24	23	23	22	23
10.6	9.2	9.1	10.3	7.1	8.1	9.7
2.3	2.1	2.0	1.9	2.0	2.0	2.2
176	115	161	162	138	106	149
21	21	13	12	10	14	17
9	7	9	8	6	5	12
42	52	30	23	19	31	32
1	1	1	1	--	1	1
4	4	7	5	5	5	5
77	85	60	49	40	56	67
3	3	3	3	4	3	3
19	10	36	47	55	40	29
1	1	1	1	1	1	1
--	1	--	--	--	--	--

Crop yields. The yields of corn, oats, wheat, and soybeans as related to the soil productivity rating of the improved farm land in each of the Farm Bureau Farm Management Service areas are shown on page 20.

Source of farm earnings. The source of farm earnings as related to the earnings of each farm is shown in Chart 2 on pages 8 and 9.

Table 5.--Summary of Livestock Enterprises

Item	Your farm	Area	
		Northeast 180 farms	Black Hawk 195 farms
Hog enterprise[a]			
Number of farms		79.4	167
Total weight produced[b]		360 088	31 968
Total returns[c]	$	$ 4 959	$ 4 505
Total value of feed fed[d]		3,758	3 389
Returns per $100 feed		132	133
Feeder cattle enterprise			
Number of farms		38	46
Total weight produced[b]		34 726	19 855
Total returns[c]	$	$ 8 592	$ 4 345
Total value of feed fed[d]		7 325	3 573
Returns per $100 feed		117	122
Dairy cattle enterprise[e]			
Number of farms		114	132
Number of cows in herd		23.7	18.8
Number of cows milked		23.5	18.1
Total weight of cattle produced[b]		9 553	9 121
Total weight of milk produced		200 256	150 309
Total returns from cattle and milk[f]	$	$ 7 797	$ 5 481
Total value of feed fed[d]		4 432	3 031
Returns per $100 feed		176	181
Dual-purpose cattle enterprise[e]			
Number of farms		---	12
Number of cows in herd		---	18.9
Number of cows milked		---	12.9
Total weight of cattle produced[b]		---	15 382
Total weight of milk produced		---	87 300
Total returns from cattle and milk[f]	$	$ ---	$ 4 208
Total value of feed fed[d]		---	2 987
Returns per $100 feed		---	141
Beef cow herds[e]			
Number of farms		3	18
Number of cows in herd		17.7	21.1
Number of cows milked		1.2	3.4
Total weight of cattle produced[b]		7 963	17 304
Total weight of milk produced		8 434	13 378
Total returns from cattle and milk[f]	$	$ 3 216	$ 2 732
Total value of feed fed[d]		2 928	2 629
Returns per $100 feed		110	104

a/ All farms that produced 10,000 pounds or more from breeding herds or feeder pigs were used in this study.

b/ The total weight of livestock produced is obtained by adding the net increase in weight as shown in the livestock summary, the weight of those that died, and the weight of those butchered for home use.

c/ The total returns from livestock is obtained by adding the net increase in value and the value of animals butchered for home use.

d/ When the value of feed fed was calculated, the grain was priced at the average farm prices for Illinois as follows: Corn, $1.07; oats, 68 cents.

Table 5.--Summary of Livestock Enterprises

Farm Bureau Farm Management Service Area						Average of all areas 1657 farms
Ill. Valley 208 farms	W.Central 209 farms	Pioneer 315 farms	Eastern 182 farms	E.Central 187 farms	Sangamon 181 farms	
176	197	203	114	111	148	1 195
54 760	56 768	42 895	31 366	26 949	34 750	41 363
$ 7 618	$ 7 992	$ 5 956	$ 4 386	$ 3 712	$ 4 846	$ 5 772
5 475	5 741	4 224	3 182	2 668	3 462	4 172
139	139	141	138	139	140	138
72	38	56	21	25	35	331
26 668	27 544	21 981	23 563	20 036	20 254	24 578
$ 6 304	$ 6 709	$ 4 944	$ 5 444	$ 4 396	$ 4 461	$ 5 717
5 234	5 480	4 133	4 883	4 007	3 776	4 816
120	122	120	111	110	118	119
72	58	119	63	63	37	658
15.9	12.7	12.2	11.9	9.3	10.3	15.5
15.1	11.5	11.3	11.1	8.5	9.0	14.8
7 156	6 452	5 448	7 138	3 829	5 841	7 201
121 791	76 263	79 444	81 590	52 430	57 165	115 311
$ 4 780	$ 3 089	$ 3 301	$ 2 976	$ 2 107	$ 2 504	$ 4 470
2 621	1 662	1 860	2 024	1 402	1 654	2 566
182	186	177	147	150	151	174
6	9	8	11	25	14	85
11.6	13.8	11.0	12.4	10.0	10.2	12.2
4.0	5.4	5.4	7.3	5.9	6.0	6.8
8 065	12 274	8 979	10 140	7 452	8 442	9 780
22 953	31 004	28 203	40 208	32 579	28 581	39 375
$ 1 722	$ 2 455	$ 1 977	$ 2 603	$ 1 846	$ 1 900	$ 2 354
1 357	1 780	1 971	2 164	1 388	1 553	1 835
127	138	100	120	133	122	128
20	50	48	16	31	58	244
23.0	17.2	13.1	9.8	13.2	13.8	15.4
2.4	1.9	1.9	2.0	1.1	2.3	2.0
17 537	13 068	10 952	8 830	12 437	10 285	12 248
13 007	9 778	9 384	12 050	5 999	12 674	10 571
$ 2 996	$ 2 375	$ 1 801	$ 1 448	$ 1 631	$ 1 770	$ 2 050
2 653	2 083	1 552	1 532	1 640	1 557	1 859
113	114	116	95	99	114	110

barley, $1.08; wheat, $1.58; soybeans, $2.09; rye, $1.20. Purchased supplements were priced at cost, hay and silage at farm values in the area, and pasture at 10 cents per pasture day.

e/ Only herds having five or more cows were used in these studies.

f/ The total returns from milk is obtained by adding the value of sales, the value of milk used in the home, and the value of milk fed to livestock.

Table 6.--Summary of Livestock Enterprises

Item	Your farm	Area	
		Northeast 180 farms	Black Hawk 195 farms
Feeder sheep enterprise[a]			
Number of farms		2	1
Total weight of sheep and wool produced		7 582	5 190
Total returns	$	$1 028	$ 776
Total value of feed fed[d]		1 614	565
Returns per $100 feed		64	137
Native flocks of sheep[a]			
Number of farms		9	26
Total weight of sheep and wool produced		1 245	2 336
Total returns	$	$ 231	$ 382
Total value of feed fed[d]		238	303
Returns per $100 feed		97	126
Poultry enterprise[b]			
Number of farms		136	155
Average number of hens		162	148
Weight of poultry produced[c]		943	896
Dozens of eggs produced		1 817	1 813
Total returns from poultry and eggs	$	$ 975	$ 851
Total value of feed fed[d]		597	560
Returns per $100 feed		163	152

[a] Only farms having 3 or more animal units in sheep were used.

[b] Only flocks of 50 or more hens were used in this stucy.

Table 7.--Labor, Machinery, Land Improvements, and Building Costs

Item	Your farm	Area	
		Northeast 180 farms	Black Hawk 195 farms
Days of productive work (See page 19)			
On crops		139	110
On livestock		309	309
Total days of productive work		448	419
Labor costs			
Total labor cost	$	$2 797	$2 496
Labor cost at normal rates (See page 19)		2 797	2 496
Percent your cost is of normal cost	%	100%	100%
Average number of men for 12 months		2.0	1.7
Days of productive work per man		224	246
Labor charge per month of labor	$	$ 119	$ 120
Machinery and equipment costs			
Total cost	$	$2 193	$1 665
Cost at normal rates (See page 19)		2 265	1 847
Percent your cost is of normal cost	%	97%	90%
Income from use of machinery	$	$ 209	$ 143
Total land improvements cost	$	$ 485	$ 304
Land improvements cost per acre		2.20	1.44
Total farm buildings cost - owner operated farms		585	470
Farm buildings cost per acre - owner farms		3.39	2.42
Total farm buildings cost - tenant farms		727	507
Farm buildings cost per acre - tenant farm		3.33	2.48

Table 6.--Summary of Livestock Enterprises

Farm Bureau Farm Management Service Area						Average of all areas
Ill. Valley 208 farms	W.Central 209 farms	Pioneer 315 farms	Eastern 182 farms	E.Central 187 farms	Sangamon 181 farms	1657 farms
5	9	16	3	3	--	39
12 181	11 210	11 615	16 347	5 250	--	11 097
$ 2 026	$ 2 245	$ 1 988	$ 1 427	$ 878	$ --	$ 1 843
1 728	1 853	1 536	1 286	715	--	1 531
117	121	129	111	123	--	120
22	20	32	18	12	23	162
3 331	3 256	3 575	2 392	2 220	3 437	2 923
$ 478	$ 499	$ 496	$ 379	$ 284	$ 532	$ 437
416	517	394	332	254	408	374
115	97	126	114	112	131	117
134	153	207	147	166	137	1 235
137	135	174	137	132	136	146
964	1 034	1 227	1 169	1 042	902	1 520
1 937	1 718	2 125	1 594	1 371	1 481	1 745
$ 925	$ 831	$ 1 021	$ 869	$ 778	$ 763	$ 881
579	524	634	543	485	492	554
160	159	161	160	161	155	159

c/ The weight of poultry produced as used here is the net increase in weight as shown in the poultry summary on page 14 of the Farm Account Book.

d/ See note d/, pages 14 and 15, for prices of feeds used in these studies.

Table 7.--Labor, Machinery, Land Improvements, and BuildingsCosts

Farm Bureau Farm Management Service Area						Average of all areas
Ill. Valley 208 farms	W.Central 209 farms	Pioneer 315 farms	Eastern 182 farms	E.Central 187 farms	Sangamon 181 farms	1657 farms
148	133	142	146	143	135	138
274	277	224	190	166	191	242
422	410	366	336	309	326	380
$ 2 831	$ 2 811	$ 2 542	$ 2 494	$ 2 505	$ 2 637	$ 2 636
2 831	2 811	2 542	2 494	2 505	2 637	2 636
100%	100%	100%	100%	100%	100%	100%
1.92	1.89	1.75	1.71	1.74	1.85	1.81
220	217	209	196	178	176	210
$ 123	$ 124	$ 121	$ 122	$ 120	$ 119	$ 121
$ 2 130	$ 2 235	$ 2 074	$ 2 095	$ 2 054	$ 2 162	$ 2 076
2 311	2 378	2 210	2 229	2 185	2 266	2 200
92%	94%	94%	94%	94%	95%	94%
$ 269	$ 225	$ 248	$ 297	$ 326	$ 254	$ 246
$ 437	$ 316	$ 303	$ 435	$ 307	$ 295	$ 356
1.61	1.15	1.13	1.56	1.03	.96	1.33
944	580	487	553	408	518	576
3.96	2.33	2.00	2.39	1.55	1.75	2.51
611	389	377	427	242	305	445
2.30	1.50	1.45	1.61	.90	1.04	1.73

Table 8.--Summary of Livestock Enterprises
Averages of All Farms in All Areas

Item	Your farm	Feeder pigs bought a/	Few feeder pigs bought b/	Turkeys
Feeder pigs and turkeys				
Number of farms....................	---	70	1 125	5
Number of pigs bought..............		176	11	---
Number of pigs raised..............		40	147	---
Total weight produced..............		34 451	41 793	20 529
Total returns......................	$	$ 4 410	$ 5 857	$ 6 787
Total value of feed fed............		3 517	4 213	4 489
Returns per $100 feed..............		125	139	151

Item	Your farm	Beef cows-calves sold c/	Beef cows and dairy d/	Beef cows and feeders e/
Cattle enterprises				
Number of farms....................	---	28	67	38
Number of cows in herd.............		14.3	15.4	18.1
Number of cows milked..............		1.8	4.9	2.5
Total weight of cattle produced....		10 237	10 616	27 225
Total weight of milk produced......		7 949	28 606	12 633
Total returns from cattle and milk.	$	$ 1 509	$ 2 183	$ 5 845
Total value of feed fed............		1 470	1 832	4 856
Returns per $100 feed..............		103	119	120

a/ Only farms on which more feeder pigs were bought than raised were used in this column.

b/ Only farms on which more pigs were raised than bought were used in this column.

c/ Only beef cow herds from which the calves were sold at or about weaning time were used in this study.

d/ Only breeding herds containing some beef cows and some dairy cows or with dairy cows bred to beef bulls were used in this study.

e/ Only farms having breeding herds and buying additional feeder cattle as one enterprise were used in this study.

Efficiency of Livestock Enterprises

On livestock farms the efficiency with which the livestock is produced or purchased, fed, and marketed is as important in making the net farm income high or low as are all the other factors combined. (See Bulletin 444, "Farm Practices and Their Effects on Farm Earnings," page 554.)

Since about 60 to 80 percent of all the costs of producing livestock is for the feed, the returns for livestock for $100 feed fed is a satisfactory single measure of efficiency for all classes of livestock. The average returns per $100 feed fed to different classes of livestock during 1945 are shown in Table 9, page 19. The returns on Farm Bureau Farm Management Service farms for each of 13 years, the average of the 13 years 1933 to 1945, and the average yearly price of corn are also shown in Table 9.

Table 9.--Returns per $100 Feed Fed to Different Classes of Livestock[a]
Data from All Farm Bureau Farm Management Service Areas

Year	Beef cow herds[b]	Dairy cow herds	Dual purpose herds	Feeder cattle bought	Native sheep raised[c]	Feeder sheep bought[c]	Hogs	Poultry	Yearly price of corn
1933	$ 90	$152	$112	$ 97	$ --	$ --	$128	$217	$ .32
1934	84	145	118	125	--	--	127	198	.58
1935	110	143	141	152	93	163	174	211	.74
1936	85	150	109	96	109	101	155	180	.73
1937	99	159	116	106	123	50	122	157	.91
1938	119	193	151	142	98	153	184	208	.45
1939	146	204	162	131	136	136	144	195	.43
1940	134	198	173	136	142	149	118	177	.54
1941	136	212	162	124	160	122	193	202	.63
1942	127	176	151	136	131	147	201	187	.77
1943	108	160	118	105	93	108	136	169	.97
1944	94	166	120	107	88	136	125	140	1.07
1945[d]	110	174	128	119	117	120	138	159	1.07
13-year average	111	172	135	121	117	126	150	185	.71

[a] When the value of feed fed during 1945 was calculated, the grain was priced at the average farm prices for Illinois, reported by the Illinois Cooperative Crop Reporting Service as follows: corn, $1.07; oats, $.68; barley, $1.08; soybeans, $2.09; rye, $1.20; wheat, $1.58. Purchased supplements were priced at cost, hay and silage at farm values in the area and pasture at 10 cents per pasture day.

[b] Calves from some beef cow herds were sold at weaning time, whereas other calves were fed until they weighed 1,000 pounds or more.

[c] Average of eleven years only.

[d] This line gives the average rate of returns used in calculating the average returns as shown on page 6.

Labor and machinery costs. The labor and machinery costs on each farm are compared in Table 3, page 6, and Table 7, page 17, with the average costs on all farms having the same amounts of work on crops and livestock. The standard days of man labor required for the production of crops and livestock, as shown below, are based on many years of cost studies conducted by the Department of Agricultural Economics. Estimates for uncommon crops were made by applying the same figure used for similar common crops. These standard requirements were applied to the amounts of crops and livestock on each farm in order to calculate the total days of productive labor for the farm.

Standards for Calculating Days of Labor on Crops and Livestock

Kind of crop	
Corn.................	.75 days per acre
All small grain......	.40 days per acre
Soybeans for grain...	.40 days per acre
Silage - all kinds...	1.80 days per acre
Hay - .55 days per ton plus .50 days per acre for soybeans and other annual hay crops.	

Kind of livestock		
Cows milked.......	12.00	per cow
Other cattle......	1.50	per animal unit
Hogs..............	.26	per 100 pounds
Sheep.............	3.10	per animal unit
Poultry...........	24.40	per 100 hens
Turkeys...........	.45	per 100 pounds

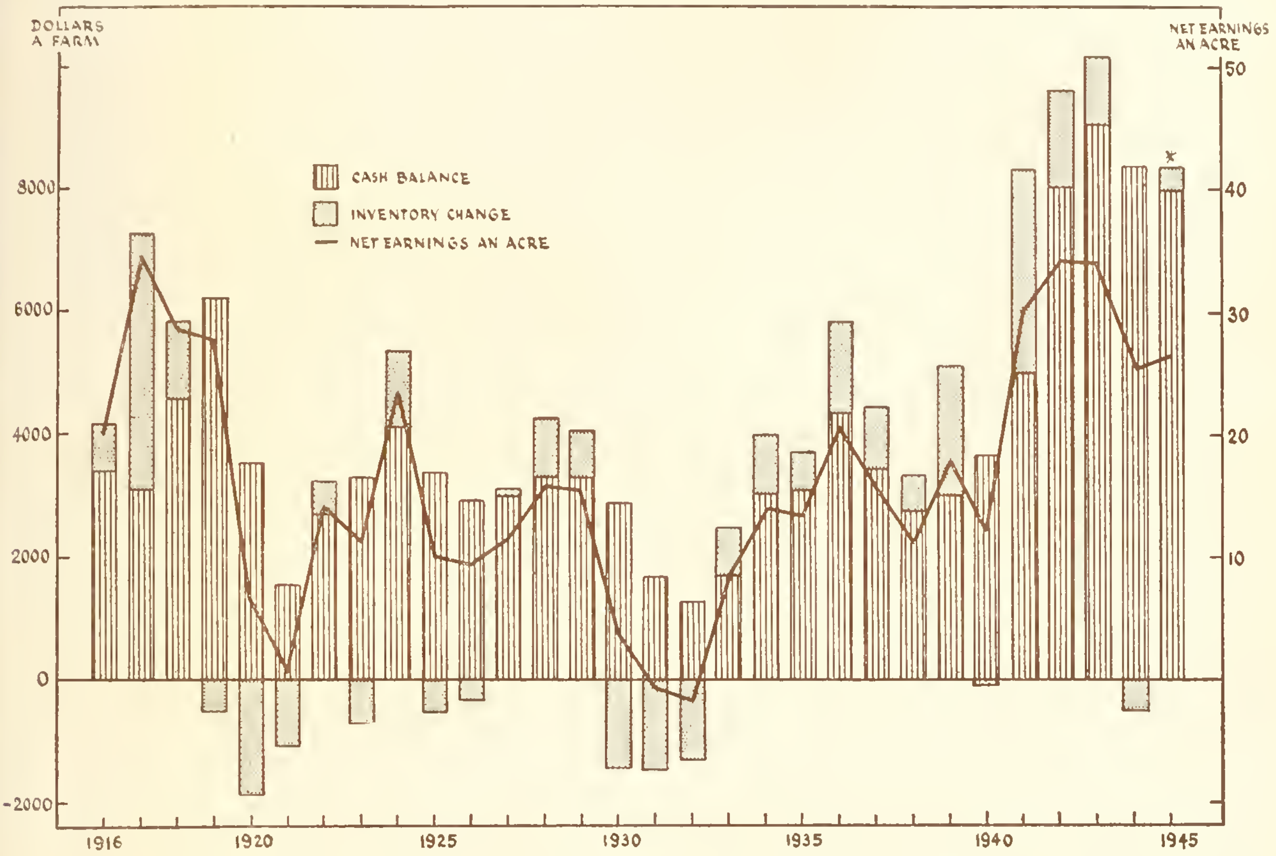
Table 10.--Crop Yields (Bushels per Acre) as Related to the Soil Productivity Rating of the Improved Land in Each Farm Bureau Farm Management Service Area

Crop and area	Your farm	Soil productivity rating of improved land[a]												
		1.0	1.5	2.0	2.5	3.0	3.5	4.0	4.5	5.0	5.5	6.0	6.5	7.0
Corn														
Northeast	______	59	61	59	56	50	48	46	45	42	41	40	--	--
Illinois Valley	______	54	55	58	58	54	49	45	42	40	38	36	--	--
Blackhawk	______	55	56	57	54	51	49	47	46	45	44	44	44	43
West Central	______	42	47	50	53	53	49	44	41	40	40	40	--	--
Pioneer	______	58	62	62	56	52	49	46	44	42	40	--	--	--
Sangamon	______	60	62	63	60	57	55	53	50	46	42	38	36	33
East Central	______	70	65	60	56	53	50	48	47	45	44	42	41	39
Eastern	______	62	62	62	59	57	54	52	49	47	44	42	--	--
Average		57	59	59	56	53	50	48	46	44	42	40	--	--
Oats														
Northeast	______	59	60	64	67	64	61	58	54	51	47	44	--	--
Illinois Valley	______	64	67	68	65	61	58	55	52	50	47	44	--	--
Blackhawk	______	63	65	70	70	65	62	60	58	54	50	46	44	42
West Central	______	58	58	57	54	50	45	41	37	35	34	33	--	--
Pioneer	______	54	57	56	52	48	45	43	41	39	37	--	--	--
Sangamon	______	58	58	58	56	52	49	47	44	41	37	33	30	27
East Central	______	55	55	52	49	46	44	41	39	37	34	32	30	28
Eastern	______	52	51	49	48	47	45	44	43	41	40	39	--	--
Average		58	59	59	58	54	51	49	46	43	41	39	--	--
Wheat														
Northeast	______	--	--	35	33	31	28	25	24	24	24	24	--	--
Illinois Valley	______	--	32	33	35	32	29	27	24	21	--	--	--	--
Blackhawk	______	--	32	31	30	29	27	24	22	19	16	12	--	--
West Central	______	30	30	28	25	23	21	18	16	14	11	9	--	--
Pioneer	______	28	28	28	27	25	24	22	20	18	--	--	--	--
Sangamon	______	--	23	26	26	23	21	21	20	19	18	17	16	14
East Central	______	--	29	27	25	24	23	22	22	21	21	20	20	19
Eastern	______	--	29	29	28	27	27	26	25	25	24	23	--	--
Average		30	30	30	29	27	25	23	22	20	19	18	--	--
Soybeans														
Northeast	______	24	24	25	26	23	21	20	19	19	18	17	--	--
Illinois Valley	______	32	31	28	27	26	24	22	20	18	17	15	--	--
Blackhawk	______	30	30	28	25	21	19	18	18	17	17	17	--	--
West Central	______	25	25	24	23	22	21	21	19	17	15	12	--	--
Pioneer	______	25	27	27	23	22	21	20	19	18	18	--	--	--
Sangamon	______	28	26	24	23	22	21	20	19	18	17	15	14	13
East Central	______	30	25	23	21	20	19	18	17	17	16	15	15	14
Eastern	______	--	24	24	23	22	21	20	19	17	15	14	--	--
Average		27	26	25	24	22	21	20	19	18	17	16	--	--

a/ The soils of the improved land of each farm were rated according to the rating systems used by the Illinois State Soil Survey, with the most productive soil types rated as 1 and the least productive soil types rated as 10.

A GRAPHIC REVIEW OF FARM EARNINGS AND RELATED INFORMATION FOR ACCOUNTING FARMS IN EAST CENTRAL ILLINOIS, 1916-1945[1]

Net farm earnings, as shown on the front cover and on this page, are calculated by subtracting value of unpaid labor from the sum of: (1) Cash balance, (2) inventory change, and (3) value of farm products used in the household. On the front cover and in Chart 1 net farm earnings are expressed on an acre basis. In Chart 1 the cash balance and inventory change are shown on the total farm basis.



* *Estimate for 1945*

Chart 1. Net Earnings an Acre; Cash Balance and Inventory Change a Farm

High farm earnings continued longer during World War II than during World War I. Furthermore, earnings were more fully realized in cash during the last war than during World War I. This situation resulted in the retirement of many farm mortgages and in the accumulation of cash reserves which foreshadow inflationary danger — especially in the land market.

During the 30 years, 1916-1945, inventories increased 19 times and decreased 11; all but two of the decreases were during the first 17 years. Increased inventories since 1933 have been due to increased production and higher prices.

Average value of unpaid labor, which is not shown in Chart 1, increased from $360 in 1916 to $1,800 in 1945 without any material increase in the amount of labor used. Whereas, the value of farm products used in the household varied from year to year depending principally on price changes and averaged $322.

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[1] East Central Illinois is the only area for which adequate records are available for 30 years, including the two World War periods.

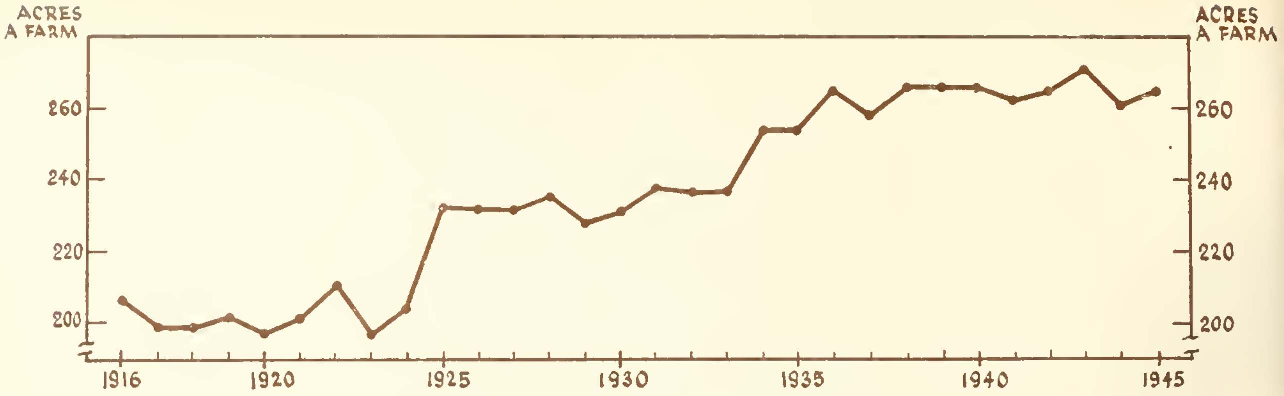


Chart 2. Variation in Size of Farms

Thirty years ago, 1916 to 1920, the accounting farms of East Central Illinois averaged 200 acres. More recently, 1941 to 1945, these farms averaged 265 acres — a 32 percent increase in size. The additional acres have added volume to the business and resulted in larger income per farm during World War II than during World War I even though prices of farm products were lower during World War II. This change in size is due primarily to the introduction of improved power, machinery, and equipment which makes it possible for the same labor to handle more land. The months of man labor used a farm has shown no material change.

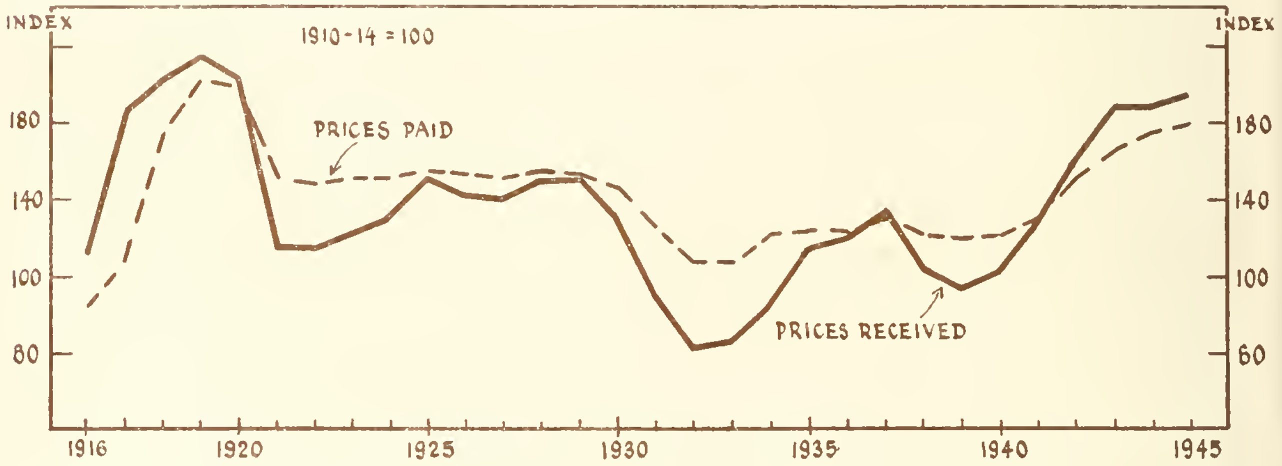


Chart 3. Prices Received by Illinois Farmers and Prices Paid by Farmers in the United States, 1916-1945

The only times during the past 30 years when prices received were appreciably above prices paid were during World Wars I and II. The 1937 year of favorable price relationships followed a drought which left farmers with small supplies of products to sell. Although prices received were lower during World War II than during World War I, net earnings an acre were at about the same level because of increased efficiency and higher production.

The price support program of 90 percent of parity or above for many farm products for two calendar years following the end of World War II will help cushion any decline that may take place in farm prices. Prices for things the farmer must buy, however, may be expected to remain relatively high for several years. Important factors affecting prices will be employment, national income and foreign demand for farm products.

Cooperative Extension Work in Agriculture and Home Economics: University of Illinois, College of Agriculture, and the United States Department of Agriculture cooperating. H. P. Rusk, *Director*. Acts approved by Congress May 8 and June 30, 1914. (32581)

THREE-YEAR REPORT

ON 174 FARMS IN THE

BLACKHAWK

FARM BUREAU FARM MANAGEMENT SERVICE

1943-1944-1945

A RECIPE FOR GOOD FARMING

SOUND LAND USE AND SOIL CONSERVATION PROGRAM
GOOD ROTATION AND FIELD ARRANGEMENT
SUITABLE KIND AND AMOUNT OF LIVESTOCK
HIGH CROP YIELDS
EFFICIENT LIVESTOCK
THOUGHTFUL USE OF LABOR
EFFECTIVE POWER AND MACHINERY
CONSERVATIVE BUILDINGS AND FENCES
ATTENTION TO PRICES OF PRODUCTS SOLD
LARGE ENOUGH BUSINESS FOR GOOD LIVING

mixed with

CONSTANT STUDY OF FARM BUSINESS
TIMELINESS AND REGULARITY
KINDNESS--CLEANLINESS--THOROUGHNESS
WILL TO DO A GOOD JOB
LOVE OF FARM WORK AND FARM LIFE

Extension Service in Agriculture and Home Economics
University of Illinois College of Agriculture, Urbana
in Cooperation with Farm Bureaus in Northwest Illinois
September, 1946
AE2414

COOPERATIVE EXTENSION WORK IN AGRICULTURE AND HOME ECONOMICS
STATE OF ILLINOIS

College of Agriculture,
University of Illinois
United States Depart-
ment of Agriculture
cooperating

Extension Service in
Agriculture and Home
Economics, Urbana,
Illinois

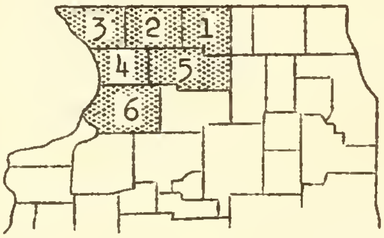
To Cooperators in the Blackhawk
Farm Bureau Farm Management Service:

This report which covers the first three years of the service in your area brings to you a rather complete analysis of your business. It will be of great value to those of you who study it carefully and profit from the things that it will tell you about your farming.

When "your farm" columns have been filled in and your farm located on the charts, the report will show how your farm earnings compare with the other farms in your area, with other farms having the same size, and with other farms having the same source of income.

A careful study of the farm efficiency chart on page 3, after it is filled out for your farm, will show clearly why your earnings are high, medium, or low compared with other farms. A study of the figures in Table 2, page 2, will show something about how much of your high or low earnings are due to crop production, livestock efficiency, labor costs, and machinery costs.

The value of the Farm Bureau Farm Management Service will show in increased earnings on your farm as you learn from your fieldman and others how those farmers who succeed best have done their work and as you apply their experiences to your farm. Another thing that may lead to your increased earning power is to increase the size of the business at points where you excel, and decrease it at the points where you may not have the aptitude to succeed best.



Counties in the Blackhawk Farm Bureau Farm Management Service

1. Winnebago
2. Stephenson
3. Jo Daviess
4. Carroll
5. Ogle
6. Whiteside

Some of you will realize as you look back ten years from now that this year in the Farm Bureau Farm Management Service marks the turning point in your farming operations from years of unsatisfactory earnings (when compared with other farms) to years of relatively good earnings that will enable you to give your farmily a more satisfactory living and will enable you to provide for your own later years.

I wish you continued success in the years that lie ahead.

Sincerely yours,

M. L. Mosher

M. L. Mosher, Specialist in
Farm Management Extension

THREE-YEAR REPORT ON 174 FARMS OF THE BLACKHAWK FARM BUREAU FARM MANAGEMENT SERVICE FOR 1943, 1944, AND 1945

M. L. Mosher, F. J. Reiss, W. D. Buddemeier[1]

Average annual net earnings of $4,713 per farm of 210 acres (154 acres tillable) were realized for the use of the capital and for management of 174 farms in the six northwest Illinois counties during 1943, 1944, and 1945. This amount is probably at least 50 percent more than the average farm of the same size earned; farms in the service are operated under better than average management.

The average earnings amounted to 13.41 percent of the average capital of $35,158, with land valued at prewar prices. If 5 percent of the capital were deducted from the net earnings for the operator's labor, capital, and management, it would leave $4,230 a farm for the operator's labor and management. If the earnings above 5 percent of the capital were divided equally among the farm workers (including the operator), it would give $2,961 for each 12 months of labor.

Table 1.--Tenant's and Landlord's Earnings on Fifty-Three Rented Farms by Type of Lease[a]

Items	Your farm	Livestock share leases only	Cash rent only	Mixed leases
Number of farms........................	______	26	12	15
Size of farm--total acres..............	______	201	174	202
Tenant's share of business				
Capital................................	$______	$ 8,723	$10,168	$ 7,971
Returns for labor, capital and management..........................	______	3,493	3,975	3,217
Interest on capital at 5 percent.....	______	436	508	399
Labor and management earnings........	______	3,057	3,467	2,818
Cash income				
Total cash receipts..................	$______	$ 7,961	$ 9,536	$ 8,425
Total cash expenses..................	______	4,730	6,138	5,033
Cash balance.......................	______	3,231	3,398	3,392
Landlord's share of business				
Capital..............................	$______	$31,088	$18,248	$26,788
Returns for use of capital...........	______	3,652	506	2,691
Rate earned on capital--percent......	______	11.75	2.78	10.04
Total farm business				
Total capital per acre..............	$______	$ 197.90	$ 163.51	$ 172.02
Operating capital per acre...........	______	74.19	57.98	58.66
Net earnings per acre................	______	29.04	19.04	23.01
Rate earned on total capital.........	______	14.67	11.65	13.38
Percent of gross income from prod. l.s.	______	91.7	87.5	88.1
Percent of tillable land in:				
All grain and silage crops.........	______	67.7	62.0	64.0
All hay and pasture................	______	31.1	36.2	34.1
Biennial and perennial legumes.....	______	26.2	28.5	29.9
Percent of farm tillable.............	______	79	73	69
Value of land per acre...............	$	$ 77.30	$ 65.79	$ 66.86

[a] See page 7 for discussion of tenant's and landlord's earnings.

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[1] The project is under the direct supervision of M. L. Mosher. F. J. Reiss supervised the clerical work and helped prepare the report. W. D. Buddemeier is fieldman in the area.

Table 2.--Some Factors That Affect Farm Earnings and That Are Used on the Farm Efficiency Chart on the Opposite Page

Item			Column 1	Column 2	Percent your farm is of average (% Col. 1 is of 2)	Annual value of your crops and livestock	
			Your return per $100 capital	Average returns per $100 capital[a]			
Returns for capital and management.................			$	$13.41	%	Above average	Below average
GROSS EARNINGS FACTORS							
Crop yields	Your acres	Average price	Your yields	Average yields[b]			
Corn		$1.04			%	$	$
Oats		.69			%		
Wheat		1.48			%		
Soybeans		1.86			%		
Total crop value per acre			$	$	%	$	$
Livestock returns			Your returns	Average returns[c]			
Cattle-________...........			$	$	%	$	$
Cattle-________...........					%		
Hogs......................					%		
Sheep.....................					%		
Poultry...................					%		
Total livestock returns			$	$	%	$	$
Total crops and livestock..			$	$	XXX %	$	$
						Annual cost of your labor and machinery	
TWO COST FACTORS			Your cost	Average costs[d]		Below average	Above average
Labor......................			$	$	%	$	$
Machinery and power.........					%		
Total of two cost factors..			$	$	XXX %	$	$
						Favorable	Unfavorable
TOTAL OF INCOME AND COST FACTORS						$	$
ORGANIZATION OF THE FARM					Your farm	Average farm	
Size of farm--total acres........................						210	
Percent of farm tillable.........................						73.4	
Percent of tillable land in biennial and perennial legumes..................................						28.6	
Feed fed per acre to productive livestock........					$	$ 34.94	

a/ This is the average annual net earnings per $100 capital in your area. Expressed as a percentage figure, it is the rate earned on the total capital investment.

b/ These are the average annual yields on soils similar to yours in your area.

c/ These are the average annual returns for your area for the same value of feed as you fed to your kinds of livestock.

d/ These are approximately average annual labor and machinery and power costs of farms in your area that had the same amounts of work on crops and livestock as you had. Average machinery and power costs are for farms that had little or no income from custom work.

Chart 1.--Farm Efficiency Chart

Net farm earnings--percent of average returns per $100 capital	Gross earnings factors											Cost factors		Soil improvement factors	
	Crop yields--percent of average on similar soils					Livestock returns--percent of average from same feed									
	Corn	Oats	Wheat	Soybeans	Value of all crops	Cattle	Cattle	Hogs	Sheep	Poultry	All livestock	Labor--percent of average of similar farms	Machinery--percent of average of similar farms	Percent of tillable land in biennial and perennial legumes	Feed per acre to productive livestock--dollars
190	145	161	170	169	145	160	160	131	177	220	131	51	47	60	70
The best one-fifth of the farms in each factor comes between this line and the next line below.															
130	111	115	133	127	113	113	113	110	127	118	107	83	74	38	47
100	100	100	100	100	100	100	100	100	100	100	100	98	87	29	35
	The average of the farms in each factor comes to this line.														
69	89	83	75	84	88	85	85	87	65	75	89	114	106	21	26
The lowest one-fifth of the farms in each factor comes between this line and the bottom line.															
-6	49	43	45	30	64	48	48	50	18	20	62	163	135	6	12

Chart 2.--Size of Farm as Related to Rate Earned on Capital

Each sign (+) represents a farm, as farms were distributed from the bottom to the top of the chart according to the rate earned on capital.

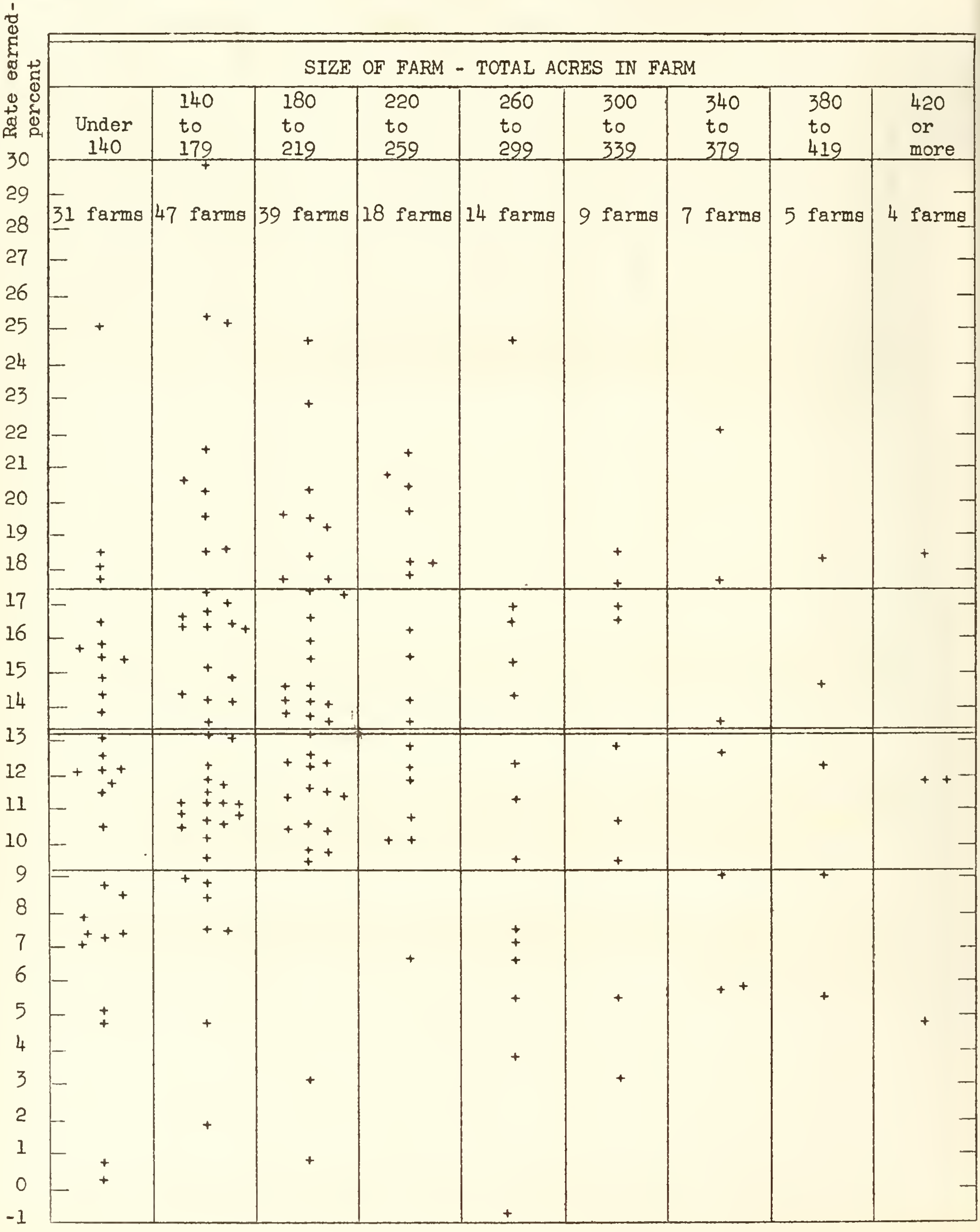


Chart 3.--Size of Farm as Related to the Operator's Labor and Management Earnin

Each sign (+) represents a farm as farms were distributed from the bot tom to the top of the chart according to the operator's labor and management earnings.

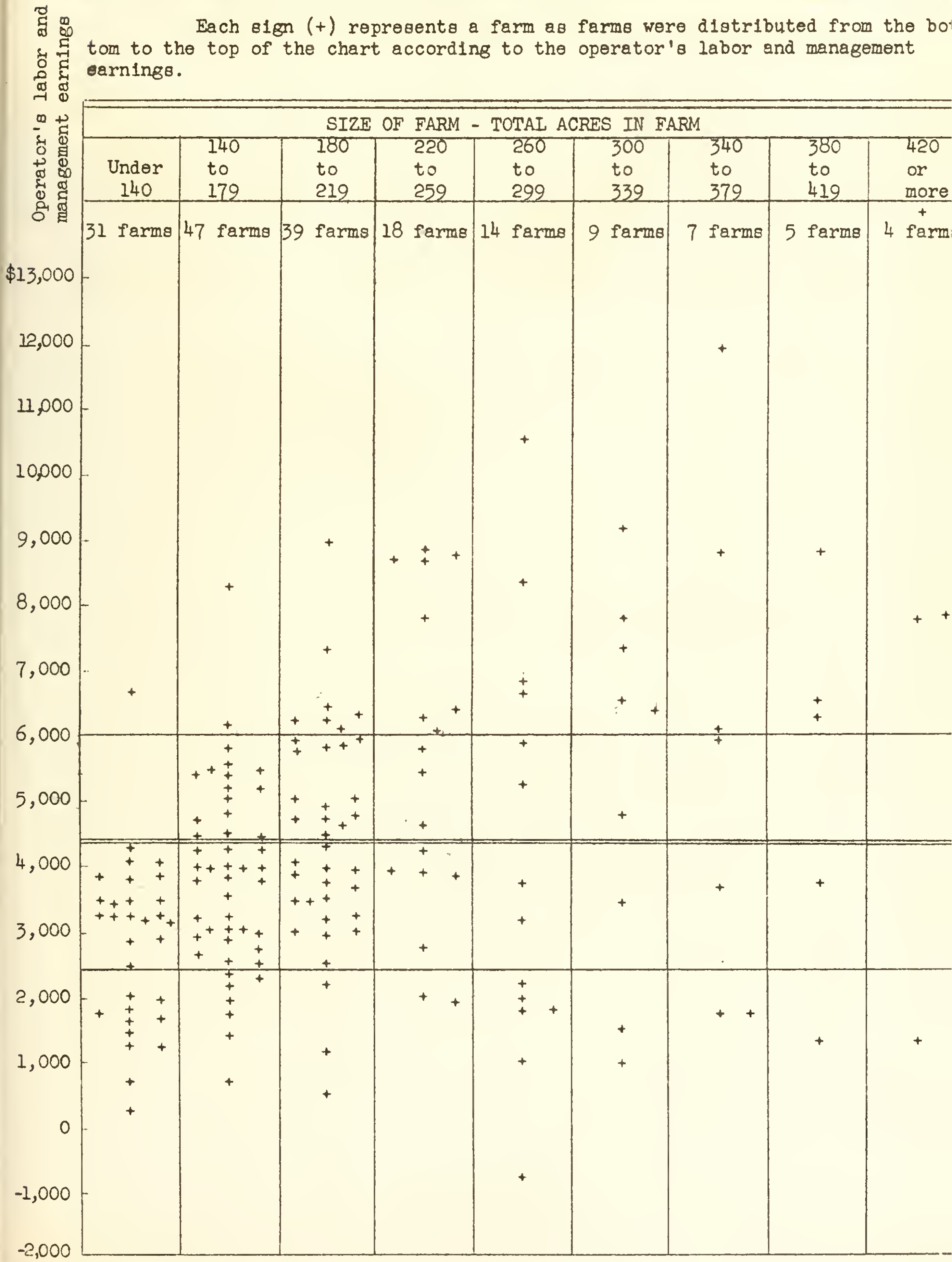
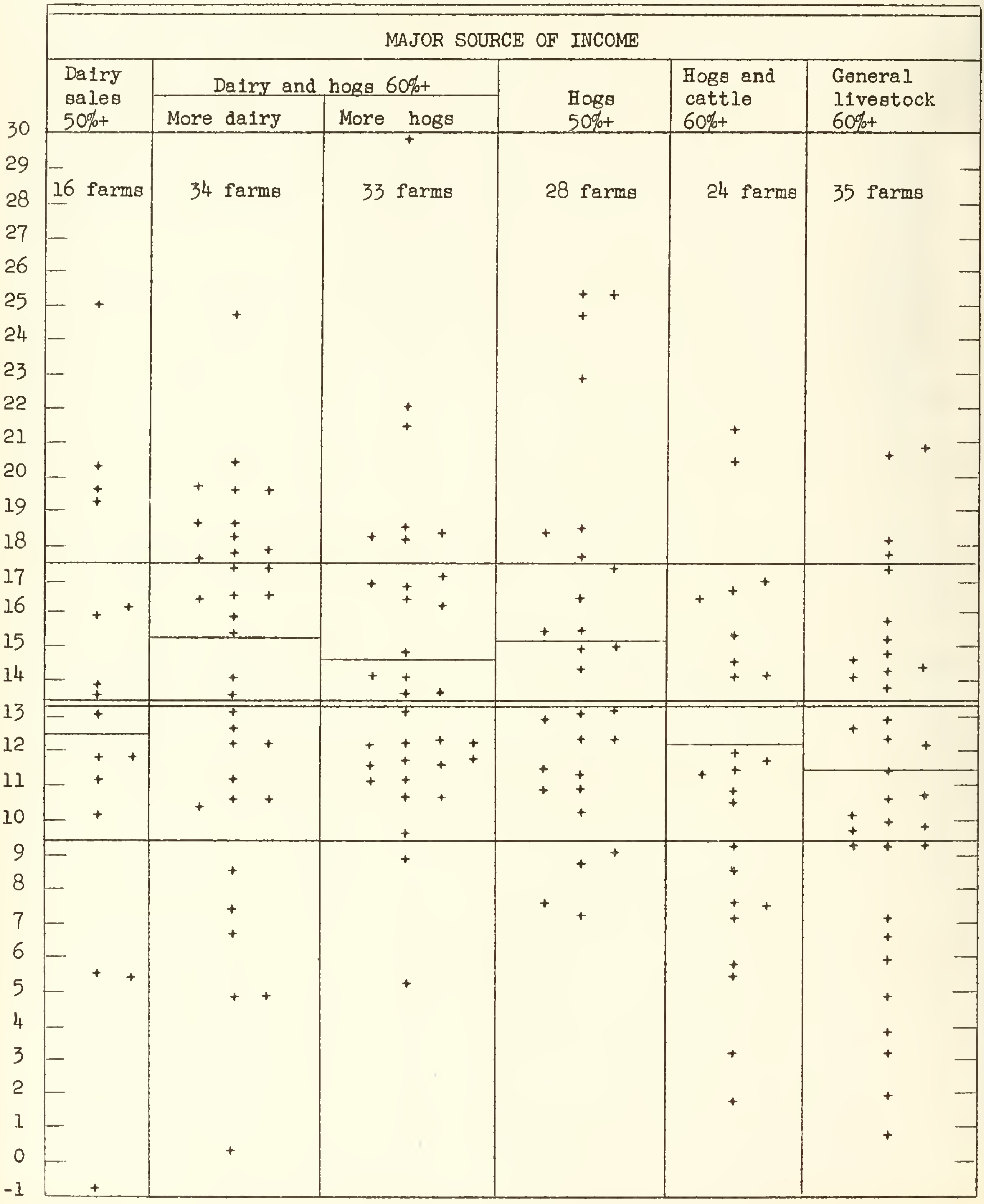


Chart 4.--Source of Farm Income as Related to Rate Earned on Capital

Each sign (+) represents a farm, as farms were distributed from the bottom to the top of the chart according to rate earned on capital.



Tenant's and landlord's earnings. See Table 1, page 1. The average tenant's labor and management earnings were $3,057 on 26 livestock share-lease farms, $3,467 on 12 cash-lease farms, and $2,818 on 15 mixed-lease farms. The landlord's returns on their investments were 11.75 percent, 2.78 percent, and 10.04 percent respectively on the same groups of farms; land was valued at prewar prices.

Source of income. See Chart 4, page 6 and Table 3, pages 8 to 11. The 174 farms were divided into groups, according to the major source of income, so that each cooperator could compare his earnings with those of other farms of the same type; the purpose was not to show differences in earnings of different types of farms.

Four farms on which the sale of grain was a major source of income were not included in Chart 4 or Table 3. They were included in the average for all farms.

Long-time studies show that on land suitable for grain production and diversified livestock production there is little difference in average income over a period of years because of type of farming or kind of livestock kept. However, in an area like northwest Illinois, where most farms have more or less untillable land that must be kept in grass and where from 20 to 60 percent of the tillable land needs to be in legumes and grasses in order to maintain fertility and prevent erosion, cattle or sheep are essential to use the large amount of roughage that is produced.

The 67 farms with 60 percent or more of gross earnings from dairy sales and hogs were divided into two groups, one of which had more income from dairy sales than from hogs and the other more income from hogs than from dairy sales.

The highest grain yields were obtained on the hog farms and the cattle and hog farms. These two groups of farms had 25.2 percent and 27.5 percent of tillable land in biennial and perennial legumes and fed more feed per acre than any other type of farm. Farm management records have shown repeatedly from year to year that highest yields of grain are obtained on those farms where 25 percent or more of the tillable land is kept in biennial and perennial legumes and where enough forage-consuming livestock is kept to utilize all of the roughages and much of the grain.

The highest per-acre value of grain, silage, hay, and tillable pasture crops was obtained on the hog farms. This was due to the high yields of grain and the large proportion of land in corn on the hog farms. The lowest acre-value of crops was on the dairy farms. This was due to low yields, low soil-rating land, and a small proportion of land in grain and silage crops.

Table 3.--Source of Farm Earnings as Related to Net Farm Earnings and Some Factors That Affect Earnings

Item	Your farm	Average of all farms
Number of farms	--	174
Size of farm--total acres		210
Source of earnings--percent of gross earnings	(%)	(%)
All cattle		18.5
Dairy sales		27.4
Hogs		36.5
Sheep and wool		.7
Poultry and eggs		6.3
Total productive livestock		89.4
Feed, grain, and seeds		4.2
AAA receipts		2.0
Miscellaneous		4.4
Capital investments per farm		
Land	$	$14 613
Land improvements		824
Farm buildings		6 533
Operating capital		13 188
Total	$	$35 158
Farm earnings		
Total cash receipts	$	$13 264
Total cash expenses		7 491
Cash balance	$	$ 5 773
Total inventory changes		+248
Farm products used in household		433
Total farm and family earnings (receipts less expenses)[a]	$	$ 6 454
Family labor		466
Returns for capital, operator's labor, and management	$	$ 5 988
Operator's labor		1 275
Returns for capital and management	$	$ 4 713
Returns per $100 of capital[b] (rate earned on capital)		13.41
Interest on capital at 5 percent		1 758
Labor and management earnings		4 230
Returns for all labor and management[c]		5 419
Returns per 12 months of man labor for labor and management		2 961
Farm capital and earnings per acre		
Capital--Land	$	$ 69.62
Land improvements		3.92
Farm buildings		31.12
Operating capital		62.83
Total capital	$	$167.49
Earnings--Gross earnings		51.45
Gross expenses		29.00
Net earnings	$	$ 22.45

a/ "Receipts less expenses" is a farm accounting name for the total farm and farm family earnings. On rented farms it includes both the tenant's and landlord's shares of earnings.

Table 3.--Source of Farm Earnings as Related to Net Farm Earnings and Some Factors That Affect Earnings (continued)

Dairy sales 50%+	Dairy and hogs 60%+		Hogs 50%+	Cattle and hogs 60%+ Cattle 30%+	General livestock 60%+
	More from dairy	More from hogs			
16	34	33	28	24	35
246	180	179	211	220	241
(%)	(%)	(%)	(%)	(%)	(%)
9.5	11.1	10.1	15.6	46.0	21.3
57.0	41.6	34.1	13.5	8.0	20.6
23.5	29.9	42.1	58.0	33.0	29.1
.3	.2	.4	.6	.8	1.7
2.9	7.4	5.4	5.2	4.5	10.6
93.2	90.2	92.1	92.9	92.3	83.3
1.4	3.2	1.5	1.4	1.7	8.9
2.0	1.8	1.8	1.5	1.6	2.8
3.4	4.8	4.6	4.2	4.4	5.0
$14 395	$12 045	$13 365	$15 784	$14 823	$16 351
938	768	731	726	845	998
10 304	6 230	5 619	5 975	6 046	6 845
13 412	11 442	11 367	13 860	16 422	13 726
$39 049	$30 485	$31 082	$36 345	$38 136	$37 920
$14 048	$11 744	$11 315	$14 186	$16 698	$13 025
8 562	6 002	5 659	7 960	10 937	7 353
$ 5 486	$ 5 742	$ 5 656	$ 6 226	$ 5 761	$ 5 672
+642	+229	+347	+347	+ 13	+ 39
387	431	417	468	457	439
$ 6 515	$ 6 402	$ 6 420	$ 7 041	$ 6 231	$ 6 150
381	598	604	336	312	496
$ 6 134	$ 5 804	$ 5 816	$ 6 705	$ 5 919	$ 5 654
1 293	1 214	1 283	1 247	1 307	1 341
$ 4 841	$ 4 590	$ 4 533	$ 5 458	$ 4 612	$ 4 313
12.40	15.06	14.58	15.02	12.09	11.37
1 953	1 524	1 554	1 817	1 907	1 896
4 181	4 280	4 262	4 888	4 012	3 758
5 918	5 479	5 385	6 007	5 000	4 905
2 715	3 061	2 959	3 492	2 857	2 623
$ 58.55	$ 66.98	$ 74.59	$ 74.89	$ 67.47	$ 67.76
3.82	4.27	4.08	3.45	3.85	4.14
41.91	34.65	31.36	28.35	27.52	28.37
54.55	63.63	63.44	65.76	74.75	56.88
$158.83	$169.53	$173.47	$172.45	$173.59	$157.15
52.24	57.16	56.07	57.03	50.64	40.94
32.55	31.64	30.77	31.14	29.65	23.07
$ 19.69	$ 25.52	$ 25.30	$ 25.89	$ 20.99	$ 17.87

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b/ The "Returns per $100 capital" when expressed as a percentage of the capital is the "rate earned on capital."

c/ The "Returns for all labor and management" is the total farm and family earnings plus payments to hired labor less five percent interest on the total capital.

Table 3.--Source of Farm Earnings as Related to Net Farm Earnings and Some Factors That Affect Farm Earnings (continued)

Item	Your farm	Average of all farms
Land use and crop system	(%)	(%)
Percent of farm tillable		73.4
Average soil productivity rating of improved land		4.0
Percent of tillable land in:		
Corn for grain		33.9
Corn for silage		4.1
All corn for grain and silage		38.0
Oats		21.8
Wheat		.8
Soybeans for grain		2.8
Other grain		.8
All grain crops--includes silage corn		64.2
All hay and pasture crops		34.1
Miscellaneous crops		1.7
Biennial and perennial legumes		28.6
First year sweet clover plowed under		.8
Crop yields[a]	(bu.)	(bu.)
Corn--bushels per acre		62.3
Oats--bushels per acre		46.9
Wheat--bushels per acre		22.9
Soybeans--bushels per acre		20.5
Total value of grain, corn silage, hay and tillable pasture	$	$ 6 462
Value per acre		42.75
Livestock production		
Total value of feed fed to productive livestock	$	$ 7 333
Total returns from all livestock (1)		10 125
Total returns above feed cost		2 792
Total returns at average rate (2)		10 251
Percent of average returns--percent (1) is of (2)	%	99%
Livestock returns per $100 feed:		
Cattle		144
Hogs		130
Sheep		103
Poultry		152
Feed per acre to productive livestock	$	$ 34.94
Operating costs		
Months of man labor per farm		21.9
Average number of men per farm (12 months labor = 1 man)		1.83
Total labor cost (1)	$	$ 2 438
Labor cost at the normal rate[b] (2)		2 462
Percent of normal cost--percent (1) is of (2)	%	99%
Percent of labor cost hired	%	29.6%
Total machinery cost (1)	$	$ 1 521
Machinery cost at normal rate[b] (2)		1 708
Percent of normal cost--percent (1) is of (2)	%	89%
Labor cost per crop acre	$	$ 18.89
Machinery cost per crop acre		11.78
Land improvements cost		246
Land improvements cost per acre		1.17
Farm buildings cost		454
Farm buildings cost per acre		2.16

[a] See Table 11, page 20, for average yields of grain crops for soils of different productivity ratings.

Table 3.--Source of Farm Earnings as Related to Net Farm Earnings and Some Factors That Affect Earnings (concluded)

Dairy sales 50%+	Dairy and hogs 60%+		Hogs 50%+	Cattle and hogs 60%+ Cattle 30%+	General livestock 60%+
	More from dairy	More from hogs			
(%)	(%)	(%)	(%)	(%)	(%)
65.3	75.3	78.8	70.6	71.0	74.2
4.9	3.8	3.8	3.8	4.0	4.1
26.3	32.4	31.1	41.3	35.0	32.7
8.3	4.3	4.6	1.9	4.7	3.1
34.6	36.7	35.7	43.2	39.7	35.8
23.7	22.3	21.4	22.1	22.5	21.2
.2	.1	1.2	1.1	.7	1.2
1.1	1.4	2.9	2.0	1.9	4.2
.3	.5	1.2	.3	.9	1.0
59.9	61.0	62.4	68.7	65.7	63.4
39.1	37.1	36.5	30.1	32.8	34.0
1.0	1.9	1.1	1.2	1.5	2.6
33.8	31.8	29.4	25.2	27.5	28.5
--	.3	.8	1.5	.9	.5
(bu.)	(bu.)	(bu.)	(bu.)	(bu.)	(bu.)
61.3	63.2	63.7	64.9	64.8	58.9
45.3	45.9	48.0	51.6	51.4	41.0
--	--	24.2	24.4	--	23.1
21.7	21.5	19.0	24.0	20.2	20.3
$ 6 500	$ 5 684	$ 5 852	$ 6 858	$ 7 039	$ 6 880
40.95	42.55	42.22	46.71	45.64	39.50
$ 8 158	$ 6 460	$ 6 667	$ 8 535	$ 8 856	$ 6 735
12 445	9 807	9 789	11 619	10 666	8 686
4 287	3 347	3 122	3 084	1 810	1 951
12 880	9 772	9 854	11 332	10 742	9 204
97%	100%	99%	103%	99%	94%
170	170	166	132	112	129
120	127	130	137	134	124
100	119	103	113	105	100
137	152	151	152	146	153
$ 33.18	$ 35.92	$ 37.21	$ 40.50	$ 40.31	$ 27.91
26.2	21.5	21.8	20.7	21.0	22.4
2.18	1.79	1.82	1.72	1.75	1.87
$ 3 023	$ 2 379	$ 2 386	$ 2 350	$ 2 272	$ 2 450
3 120	2 456	2 362	2 345	2 323	2 481
97%	97%	101%	100%	98%	99%
44.9	25.3	21.8	33.3	29.8	26.6
$ 1 935	$ 1 443	$ 1 432	$ 1 545	$ 1 495	$ 1 501
2 189	1 644	1 599	1 645	1 633	1 764
88%	88%	90%	94%	92%	85%
$ 22.47	$ 21.67	$ 20.53	$ 18.29	$ 17.05	$ 16.52
14.38	13.15	12.33	12.06	11.22	10.12
259	245	212	234	274	246
1.05	1.36	1.18	1.11	1.25	1.02
660	431	458	434	418	432
2.69	2.40	2.56	2.06	1.90	1.79

b/ The normal cost per farm is the average cost of farms having approximately the same amount of work to do on crops and livestock.

Table 4.--Dairy Cattle Enterprisea/

Item	Your farm	Average of all farms	One-third with high returns for feed	One-third with low returns for feed
Number of farms	--	113	38	38
Number of cows in herd		19.1	19.7	17.7
Number of cows milked		17.9	18.6	16.5
Total animal units in herd		27.0	27.6	25.2
Percent of cattle units milked		65.7	67.5	65.5
Total feed to cattle--value	$	$ 2 838	$ 2 756	$ 2 736
Total returns from cattle--1		4 870	5 613	3 904
Total returns at average rateb/--2		4 870	4 741	4 705
Percent of average returns (% 1 is of 2)		100	118	83
Total returns above feed cost	$	$ 2 032	$ 2 857	$ 1 168
Returns per $100 feed		172	204	143
Rate earned on the total farm capital		14.39	17.32	11.60
Percent of gross farm income from dairy sales		35.0	36.8	33.0
Total pounds of milk produced		141 907	165 063	113 340
Pounds of milk per cow milked		7 916	8 851	6 857
Total pounds of beef produced		8 346	8 498	7 808
Death loss: Pounds		791	618	852
Percent of total produced		9.5	7.3	10.9
Pounds of beef per cow in herd		442	431	442
Price received per 100 lb. cattle sold	$	$ 11.13	$ 10.99	$ 10.65
Total value of milk produced	$	$ 4 110	$ 4 710	$ 3 202
Returns per 100 lb. milk produced		2.90	2.85	2.82
Feed cost per 100 lb. milk or 10 lb. beefc/		1.27	1.10	1.43
Percent of income from dairy products		84	84	82
Pounds of protein and mineral feeds per 100 lb. concentrates		18.8	18.1	18.2
Pounds of milk per pound of concentrates		2.6	3.4	2.1
Amounts of feed per 100 lb. milkc/				
Grain--pounds		19.4	16.0	23.0
Protein and mineral feeds--pounds		4.5	3.5	5.1
Total concentrates--pounds		23.9	19.5	28.1
Hay--pounds		43.2	40.9	47.8
Silage--pounds		45.8	36.1	50.6
Pasture--pasture days		2.0	1.9	2.3
Pasture days per animal unit		168	172	171

a/ Only farms which had five or more cows per farm were used in these comparisons.

b/ The average rate of returns for dairy cattle was $172 per $100 worth of feed fed.

c/ Approximately the same amount of feed is required to produce 100 pounds of milk or 10 pounds of beef.

Dairy cattle. The 113 farms that kept five or more dairy cows received an average of $172 per $100 worth of feed fed. Cost of production studies show that this return is about enough to pay all costs.

Feeding efficiency and high milk production per cow appear to be the two main factors related to the profitableness of the dairy enterprise.

Table 5.--Feeder Cattle Enterprise[a]

Item	Your farm	Average of all farms	One-third with high returns for feed	One-third with low returns for feed
Number of farms...........................	--	45	15	15
Total animal units in herd................		27.9	25.0	28.6
Percent of cattle units milked............		.2	.5	--
Total feed to cattle--value...............	$	$ 3 574	$ 2 675	$ 4 057
Total returns from cattle--1..............		3 846	3 411	3 812
Total returns at average rate[b]--2........		3 846	2 889	4 382
Percent of average returns (% 1 is of 2)		100	118	87
Total returns above feed cost.............	$	$ 272	$ 736	$ -245
Returns per $100 feed.....................		108	127	94
Rate earned on the total farm capital.....		14.44	16.36	12.65
Percent of gross income from feeder cattle		27.8	22.9	29.6
Pounds of beef produced...................		19 206	16 564	20 387
Death loss: Pounds........................		349	267	464
Percent of total produced.....		1.8	1.6	2.3
Price received per 100 lb. cattle sold....	$	$ 15.31	$ 15.44	$ 14.70
Price paid per 100 lb. cattle bought......		12.61	12.67	12.45
Feed charge per 100 lb. beef[c]............		18.58	16.11	19.88
Pounds of protein and mineral feeds per 100 lb. of concentrates.................		5.7	6.9	4.8
Amounts of feed per 100 lb. beef[c]				
Grain--pounds............................		685	537	764
Protein and mineral feeds--pounds.......		41	40	38
Total concentrates--pounds...........		726	577	802
Hay--pounds..............................		313	329	313
Silage--pounds...........................		353	463	301
Pasture--pasture days....................		10	12	10
Pasture days per animal unit.............		71	77	71

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[a] Only farms that produced 5,000 pounds or more of beef from purchased feeder cattle were used in these comparisons.

[b] The average rate of return for feeder cattle was $108 per $100 worth of feed fed.

[c] This is the feed charge for each 100 pounds of live weight of animal or 1,000 pounds of milk. Approximately the same amount of feed is required to produce 100 pounds of beef as 1,000 pounds of milk.

Feeder cattle. The average returns of $108 for each $100 worth of feed fed to feeder cattle on 45 farms were not enough to pay for the feed, labor, use of equipment, and other costs, which fact accounts for the relatively low earnings of cattle farms. See Chart 4, page 6 and Table 3, pages 8 and 9. The one-third of the farms on which cattle were most profitable did profit from the feeding operations, as shown by an average return of $127 per $100 worth of feed fed.

Comparing the 15 more profitable cattle enterprises with the 15 having a lower profit, the higher profit enterprises had a spread of 52 cents more per 100 pounds between selling and purchase prices, had a $3.77 lower feed cost per 100 pounds gain, fed 44 percent more protein feeds per 100 pounds of concentrates, and fed more silage, hay, and pasture.

Table 6.--Mixed Cattle Enterprises and Summary of All Classes of Cattle[a]

Item	Your farm	Dairy cow herds	Dual purpose cow herds	Beef cow herds	Feeder cattle bought
Number of farms	--	113	11	13	45
Number of cows in herd	______	19.1	16.3	20.7	--
Number of cows milked	______	17.9	11.1	3.1	--
Total animal units in herd	______	27.0	27.0	33.7	27.9
Percent of cattle units milked	______	65.7	41.2	9.2	.2
Total feed to cattle--value	$______	$ 2 838	$ 2 264	$ 2 223	$ 3 574
Total returns from cattle--1	______	4 870	3 022	2 182	3 846
Total returns at average rate[a]	______	4 870	3 022	2 182	3 846
Percent of average (% 1 is of 2)	______	100	100	100	100
Total returns above feed cost	$______	$ 2 032	$ 758	-41	272
Returns per $100 feed	______	172	133	98	108
Total pounds of milk produced	______	141 907	66 638	14 192	325
Pounds of milk per cow milked	______	7 916	5 989	4 567	--
Total pounds of beef produced	______	8 345	10 978	14 872	19 206
Death loss: Pounds	______	791	644	792	349
Percent of total produced.	______%	9.5	5.9	5.3	1.8
Pounds of beef per cow in herd	______	442	672	719	--
Total value of milk produced	$______	$ 4 110	$ 1 836	$ 462	$ --
Returns per 100 lb. milk produced	______	2.90	2.76	3.26	--
Price rec'd. per 100 lb. cattle sold	______	11.13	12.56	12.61	15.31
Price paid per 100 lb. cattle bought	______	--	--	--	12.61
Feed charge per 100 lb. beef[b]	______	12.66	12.83	13.65	18.58
Pounds of protein and mineral feeds per 100 lb. concentrates	______	18.8	7.0	6.6	5.7
Amounts of feed per 100 lb. beef[b]					
Grain--pounds	______	194	275	198	685
Protein and mineral feeds--pounds	______	45	21	14	41
Total concentrates--pounds	______	239	296	212	726
Hay--pounds	______	432	387	550	313
Silage--pounds	______	458	340	478	353
Pasture--pasture days	______	20	27	42	10
Pasture days per animal unit	______	168	174	202	71

[a] The average rate of return for each class of cattle is given on the line for "Returns per $100 feed."

[b] This is the feed used per 100 pounds of beef or 1,000 pounds of milk, which require approximately the same amounts of feed.

Dual-purpose cattle. Returns of $133 for each $100 worth of feed fed to these cattle were probably not enough to pay for feed and the other costs of production. The feed cost of producing beef and milk was only slightly higher than for dairy cattle, but a much greater proportion of the product consisted of beef, which brought lower returns than milk.

Beef cow herds. Even though this class of cattle did not return average prices for all feed consumed, they did contribute $1,339 per farm above the cost of silage and concentrates as a return on the hay and pasture used and the other costs of production incurred.

Table 7.--Hog Enterprise[a]

Item	Your farm	Average of all farms	One-third with high returns for feed	One-third with low returns for feed	Feeder pig enterprise[c]
Number of farms......................	--	160	53	53	8
Total feed to hogs--value............	$______	$3 192	$3 306	$3 150	$2 996
Total returns for hogs--1............	______	4 173	4 930	3 541	3 606
Total returns at average rate[b]--2....	______	4 173	4 331	4 639	3 924
Percent of average (% 1 is of 2)....	______	100	114	76	92
Total returns above feed cost.........	$______	$ 981	$1 624	$ 391	$ 610
Returns per $100 feed................	______	131	149	112	120
Rate earned on total farm capital.....	______%	13.66%	15.70%	11.93%	14.54%
Percent of gross farm income from hogs	______	37.7	40.3	35.1	33.1
Number of litters farrowed...........	______	22	21	18	8
Pigs weaned per litter...............	______	6.1	6.5	5.6	5.2
Total pounds of pork produced.........	______	30 836	35 629	26 860	27 856
Death loss: Pounds...................		611	568	662	870
Percent of total produced.	______	2.0	1.6	2.5	3.1
Average weight per hog sold..........	______	261	260	259	257
Percent of sales on hand January 1....	______	43.3	40.7	48.6	24.0
Price received per 100 lb. sold.......	$______	$13.94	$14.27	$13.71	$13.62
Feed charge per 100 lb. pork produced.	______	10.35	9.28	11.73	10.75
Pounds of protein and minerals per 100 lb. concentrates...............	______	8.0	9.1	7.6	7.8
Amounts of feed per 100 lb. pork					
Grain--pounds........................	______	454	400	516	491
Protein and mineral feeds--pounds.....	______	39	40	43	41
Total concentrates--pounds..........	______	493	440	559	532
Hay--pounds..........................	______	3	3	--	3
Pasture--pasture days................	______	1.7	1.6	1.9	1.2

[a] Farms were divided into groups according to the returns per $100 feed fed to hogs. Only farms producing 7,500 pounds or more per farm were used in this comparison.

[b] The average rate of return for feed fed to hogs was $131 per $100 worth of feed fed.

[c] Only farms that bought more pigs than were raised were included in this analysis. An average of 150 pigs per farm, weighing an average of 112 pounds, were bought at an average price of $14.10 per 100 pounds. These farms are included in the average of all farms and in the comparison between the high and low thirds.

Hogs. The production of hogs was the major enterprise on the largest number of farms in this area. The average return of $131 per $100 worth of feed fed was barely enough to pay for the feed, labor, and other costs.

Comparing the 53 higher profit hog enterprises with the 53 lower profit, the higher profit enterprises weaned about one pig more per litter; had less death loss after weaning; sold a larger portion of their hogs before January 1; fed 20 percent more protein feeds in their rations, but fed 21 percent less total concentrates per 100 pounds gain; and produced pork with 21 percent less feed costs.

Table 8.--Sheep Enterprises[a]

Item	Your farm	Native flocks			Native and range, mixed
		Average of all farms	1/3 with high returns	1/3 with low returns	
Number of flocks....................	--	30	10	10	3
Animal units per flock..............		5.1	3.3	5.4	5.6
Total feed to sheep--value..........	$	$ 249	$ 148	$ 274	$ 544
Total returns from sheep--1.........		271	230	211	653
Total returns at average rate[b]--2...		271	161	299	653
Percent of average returns (% 1 is of 2)..................		100	143	71	100
Total returns above feed cost........	$	$ 22	$ 82	$ -63	$ 109
Returns per $100 feed................		109	155	77	120
Pounds of mutton and wool produced...		2 022	1 683	1 865	4 258
Death loss: Pounds..................		333	213	405	477
Percent of total produced		16.5	12.7	21.7	11.2
Price received per 100 lb. sold......	$	$15.23	$14.49	$14.18	$14.85
Price paid per 100 lb. bought........		--	--	--	13.88
Feed charge per 100 lb. produced.....		12.32	8.78	14.68	12.77
Pounds of protein and mineral feeds per 100 lb. concentrates..........		6.1	3.2	2.0	2.5
Amounts of feed per 100 lb. produced					
Grain--pounds.....................		109	60	132	376
Protein and mineral feeds--pounds..		7	2	3	10
Total concentrates..............		116	62	135	386
Hay--pounds.......................		479	298	684	319
Silage--pounds....................		91	85	89	5
Pasture--pasture days.............		62	50	70	26
Pasture days per animal unit.......		243	257	243	202

a/ Only farms that produced 1,000 pounds or more of mutton and wool were used in this comparison.

b/ The average rate of return was $109 per $100 worth of feed fed to native flocks and $120 per $100 worth of feed fed to mixed native and range sheep.

Sheep. While the raising or feeding of sheep is a minor enterprise in this area, about 30 farms did have some income from them. Thirty native flocks brought average returns of $271 per farm. This was $109 per $100 worth of feed fed. Much of the feed charged to sheep on some farms was for pasture that would not have been used for other livestock.

One-third of the native flocks showed average profitable returns of $155 per $100 worth of feed fed, while one-third brought only 77 percent of the value of the feed. Comparing the 10 higher profit flocks with the 10 lower profit flocks, the higher profit flocks had only about one-half of the death loss, fed less protein concentrates, fed less than one-half as much concentrates per 100 pounds gain, and produced mutton and wool at a little more than one-half the feed cost.

The three farms that fed range sheep received an average of $120 per $100 worth of feed fed, which was about enough to pay all costs.

Table 9.--Poultry Enterprise[a]

Item	Your farm	Average of all farms	One-third with high returns for feed	One-third with low returns for feed
Number of farms............................	--	142	47	47
Average number of hens per farm...........		159	162	143
Total value of feed to poultry............	$	$ 551	$ 521	$ 564
Total returns from poultry--1.............		849	992	683
Total returns at average rate[b]--2.........		849	803	868
Percent of average returns (% 1 is of 2).	%	100%	124%	79%
Total returns above feed cost.............	$	$ 298	$ 471	$ 119
Returns per $100 feed.....................		154	190	121
Total returns per hen.....................		5.35	6.11	4.77
Total feed cost per hen...................		3.47	3.21	3.94
Returns per hen above feed cost...........		1.88	2.90	.83
Number of eggs produced per hen...........		142	158	125
Percent of eggs laid in Oct., Nov., Dec....	%	20.9%	21.5%	19.1%
Average price of eggs per dozen...........	$	$ .35	$ .35	$ .35
Percent of income from eggs sold..........	%	69%	68%	66%
Amounts of feed per hen				
Grain--pounds............................		102	95	120
Protein, mineral, and mixed feeds--pounds		39	38	41
Total concentrates--pounds............		141	133	161

[a] Only farms that had 50 or more hens were used in these comparisons.
[b] The average rate of returns for poultry was $154 per $100 worth of feed fed.

Poultry. Poultry on 142 farms brought average returns of $849 per farm, which was $154 returns per $100 worth of feed fed. This was not enough to pay for all feed, labor, equipment, and other costs. The one-third higher profit flocks brought $2.90 per hen above feed costs and the one-third lower profit flocks brought only $.83 per hen above feed costs.

Comparing the 47 higher profit flocks with the 47 lower-profit flocks, the higher profit flocks had 19 more hens; produced 33 more eggs per hen; produced more eggs during October, November and December; received 2.0 percent more of their gross income from eggs sold; fed 25 pounds less feed per hen; and received the same price per dozen of eggs sold.

Crop production. In a livestock area the value of crop production per acre affects farm earnings more than does any other factor except livestock efficiency. The value of crop production per acre varies with the quality of land, the yield per acre, and the proportion of land kept in those crops that bring the highest returns per acre.

Crop yields differ more than many persons realize because of differences in the natural quality of land that often appears about the same on the surface. See Table 10. For this reason, each cooperator's grain yields are compared with those of other farms on which the improved land has about the same fertility rating.

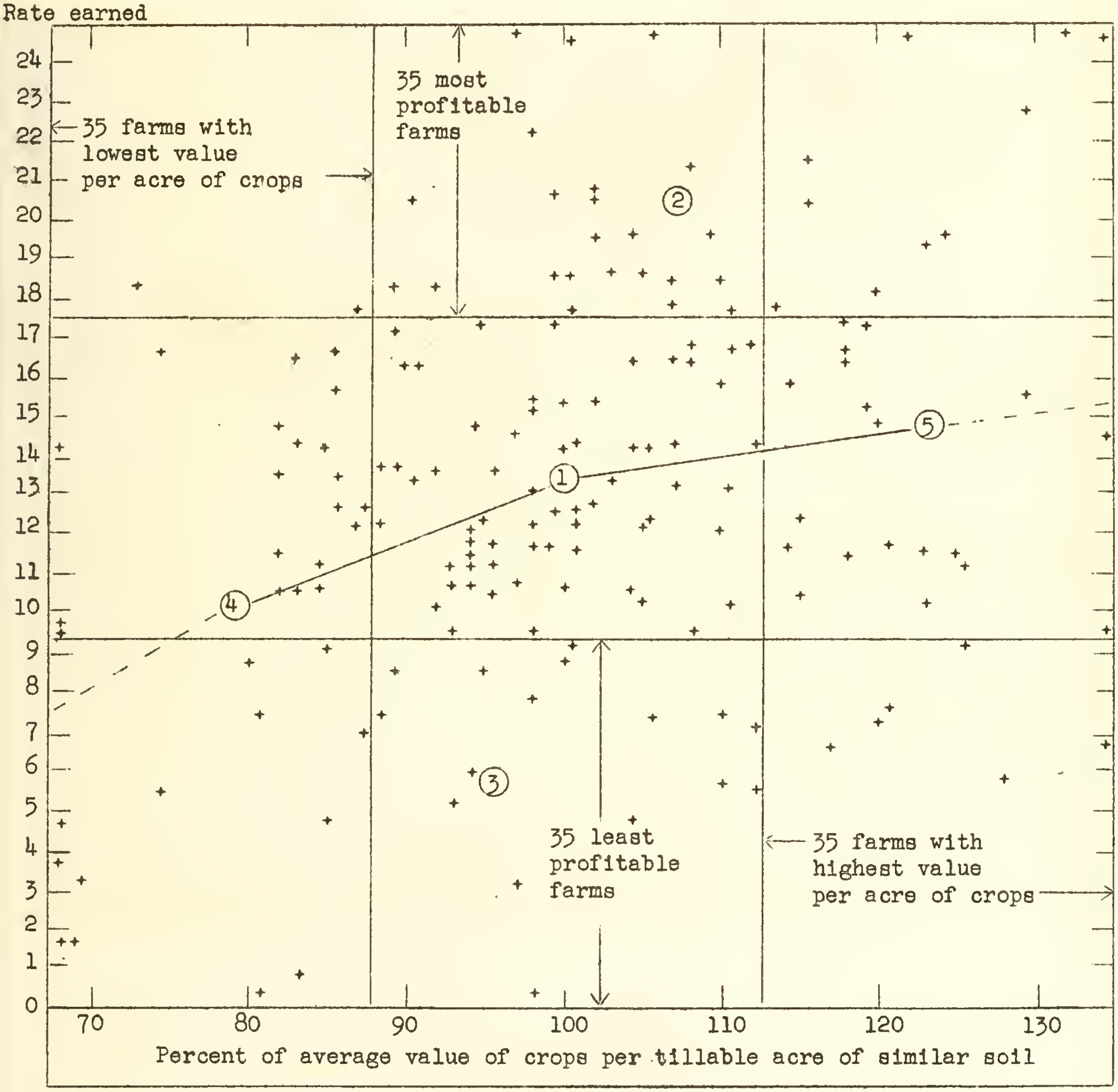
The total value of all crops is much higher on the high rating than on the low rating land because of both the higher crop yields and the larger proportion of the tillable land that is planted to corn.

Table 10.--Crop Yields and Crop Values as Related to the Soil Productivity Rating of the Improved Land

Average soil rating	Yield of grain-bushels per acre								Value of all crops per acre of tillable land	
	Corn		Oats		Wheat		Soybeans			
	Your farm	Average	Your farm	Average	Your farm	Average	Your farm	Average	Your farm	Average
1.0		71.0		55.0		26.0		26.0		$51.00
1.5		71.0		55.5		25.5		26.0		50.75
2.0		71.5		55.0		24.5		26.0		50.00
2.5		72.0		53.0		23.0		25.5		48.70
3.0		67.0		49.0		22.0		21.0		45.00
3.5		64.5		48.5		21.0		19.0		43.50
4.0		63.0		48.0		20.0		19.0		42.70
4.5		61.5		46.5		19.0		18.5		41.25
5.0		60.0		43.5		18.0		18.0		40.00
5.5		57.5		40.0		17.0		17.0		38.50
6.0		56.0		37.0		16.0		15.0		37.00
6.5		54.0		36.0		15.0		--		35.70
7.0		52.5		35.5		14.0		--		34.20
7.5		51.0		35.0		13.0		--		33.00
8.0		50.0		35.0		--		--		31.40

Chart 5.--Value of Crops Per Acre as Related to the Rate Earned on Capital

Each sign (+) represents a farm, as the farms are distributed from the left to the right of the chart according to the percent of average value of crops per tillable acre on similar soil and from the bottom to the top according to the rate earned on the total farm capital.



①= Average of 174 farms.

②= Approximate average of 35 most profitable farms. They produced about 107 percent of average crop values per tillable acre.

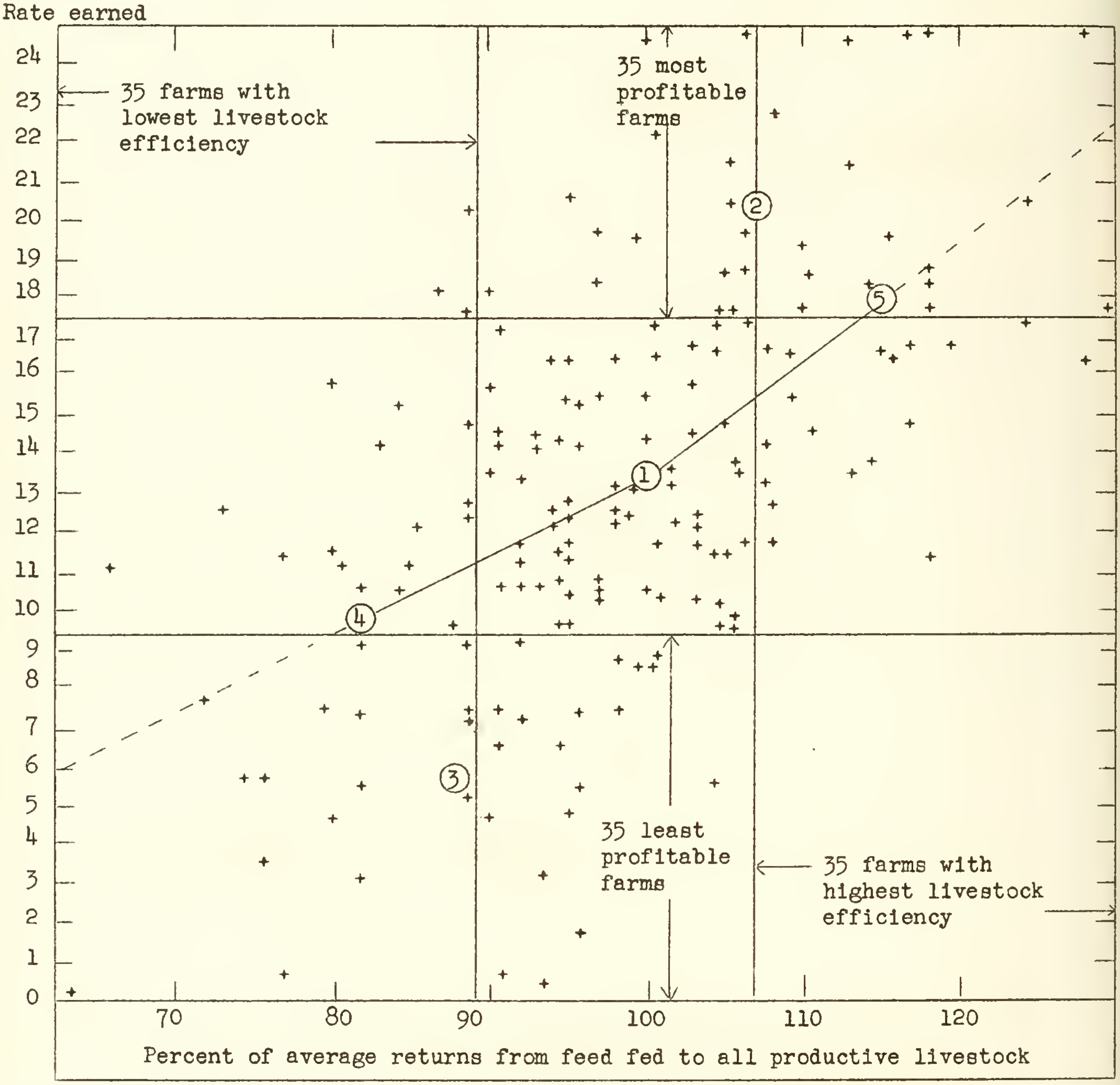
③= Approximate average of 35 least profitable farms. They produced about 96 percent of average crop values per tillable acre.

④= Approximate average of 35 farms with lowest crop values per tillable acre. They earned an average of 10.22 percent of total capital.

⑤= Approximate average of 35 farms with highest crop values per tillable acre. They earned an average of 14.83 percent of total capital.

Chart 6.--Livestock Efficiency as Related to the Rate Earned on Capital

Each sign (+) represents a farm, as the farms are distributed from the left to the right of the chart according to the percent of average returns from feed fed to all productive livestock and from the bottom to the top according to the rate earned on the total farm capital.



① = Average of 174 farms.

② = Approximate average of 35 most profitable farms. They had about 107 percent of average returns from all livestock.

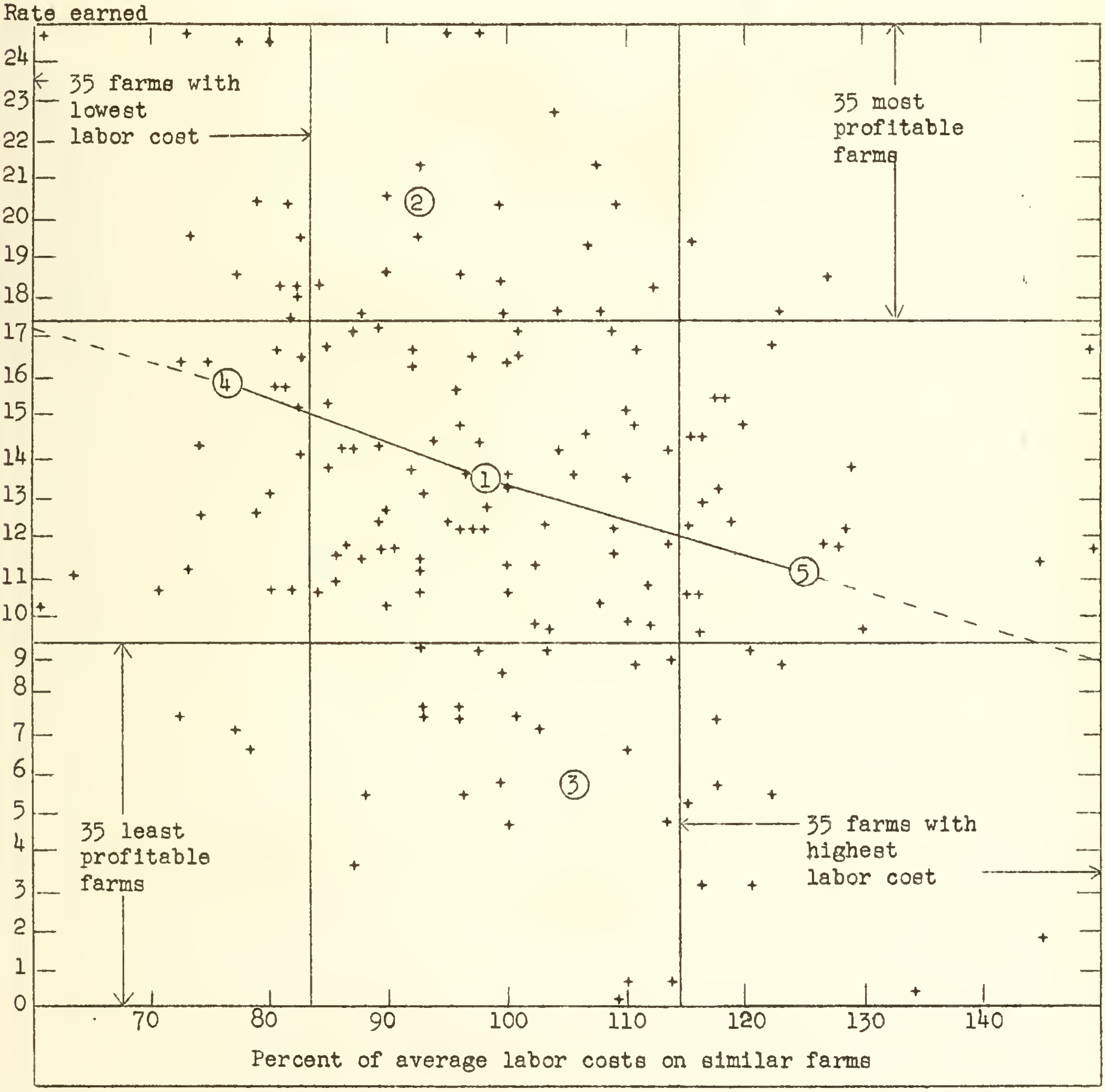
③ = Approximate average of 35 least profitable farms. They had about 88 percent of average returns from all livestock.

④ = Approximate average of 35 farms with least efficient livestock. They earned an average rate of 9.82 percent of total capital.

⑤ = Approximate average of 35 farms with most efficient livestock. They earned an average rate of 17.91 percent of total capital.

Chart 7.--Labor Cost as Related to the Rate Earned on Capital

Each sign (+) represents a farm as the farms are distributed from the left to the right of the chart according to the percent of average labor costs on similar farms and from the bottom to the top according to the rate earned on the total farm capital.



①= Average of all 174 farms.

②= Approximate average of 35 most profitable farms. They had about 93 percent of normal labor cost.

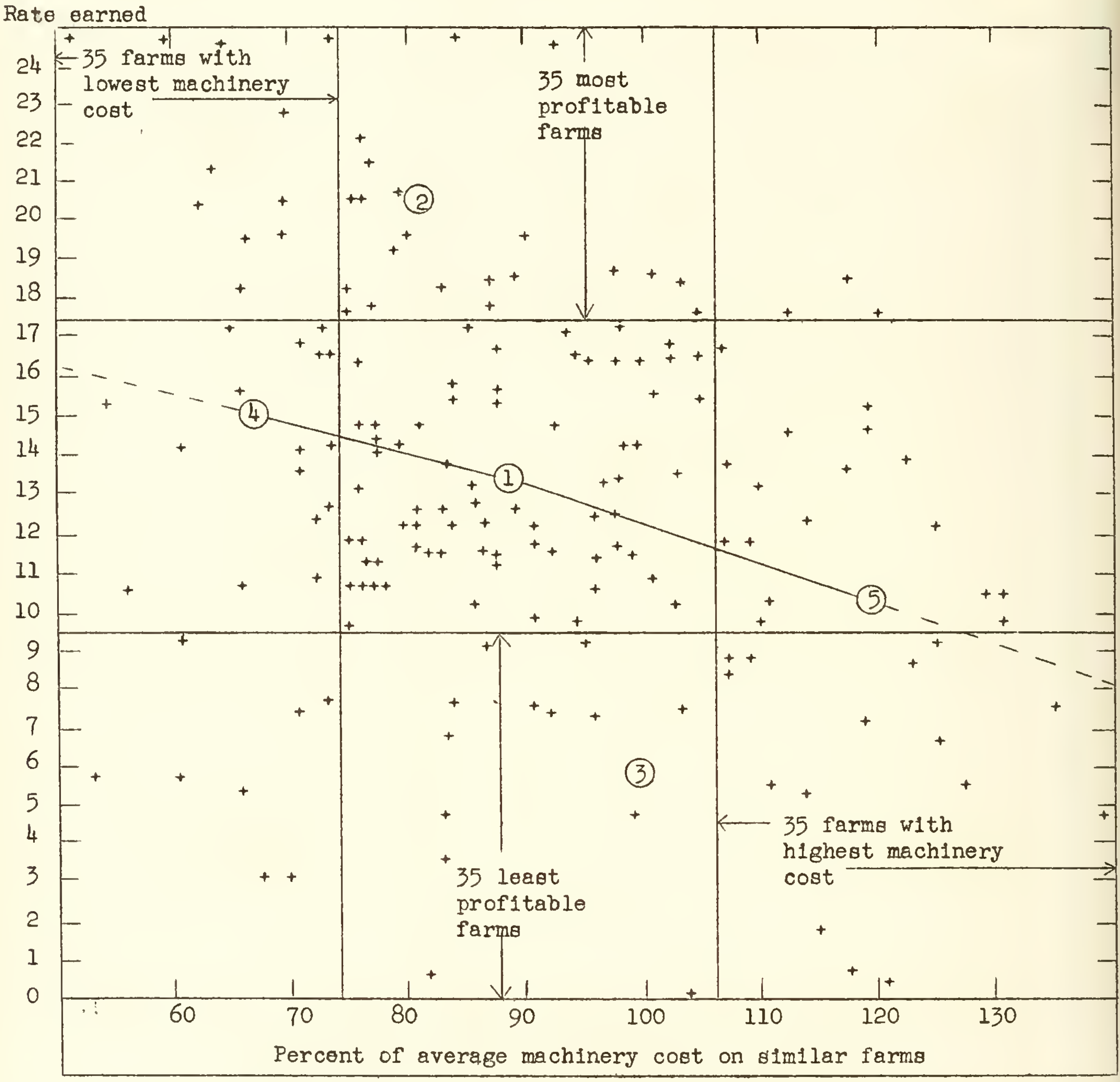
③= Approximate average of 35 least profitable farms. They had about 106 percent of normal labor cost.

④= Approximate average of 35 farms with lowest labor cost. They earned an average rate of 15.96 percent of capital.

⑤= Approximate average of 35 farms with highest labor cost. They earned an average rate of 11.12 percent of capital.

Chart 8.--Machinery Cost as Related to the Rate Earned on Capital

Each sign (+) represents a farm as the farms are distributed from the left to the right of the chart according to the percent of the average machinery costs on similar farms and from the bottom to the top according to the rate earned on the total farm capital.



① = Average of all 174 farms.

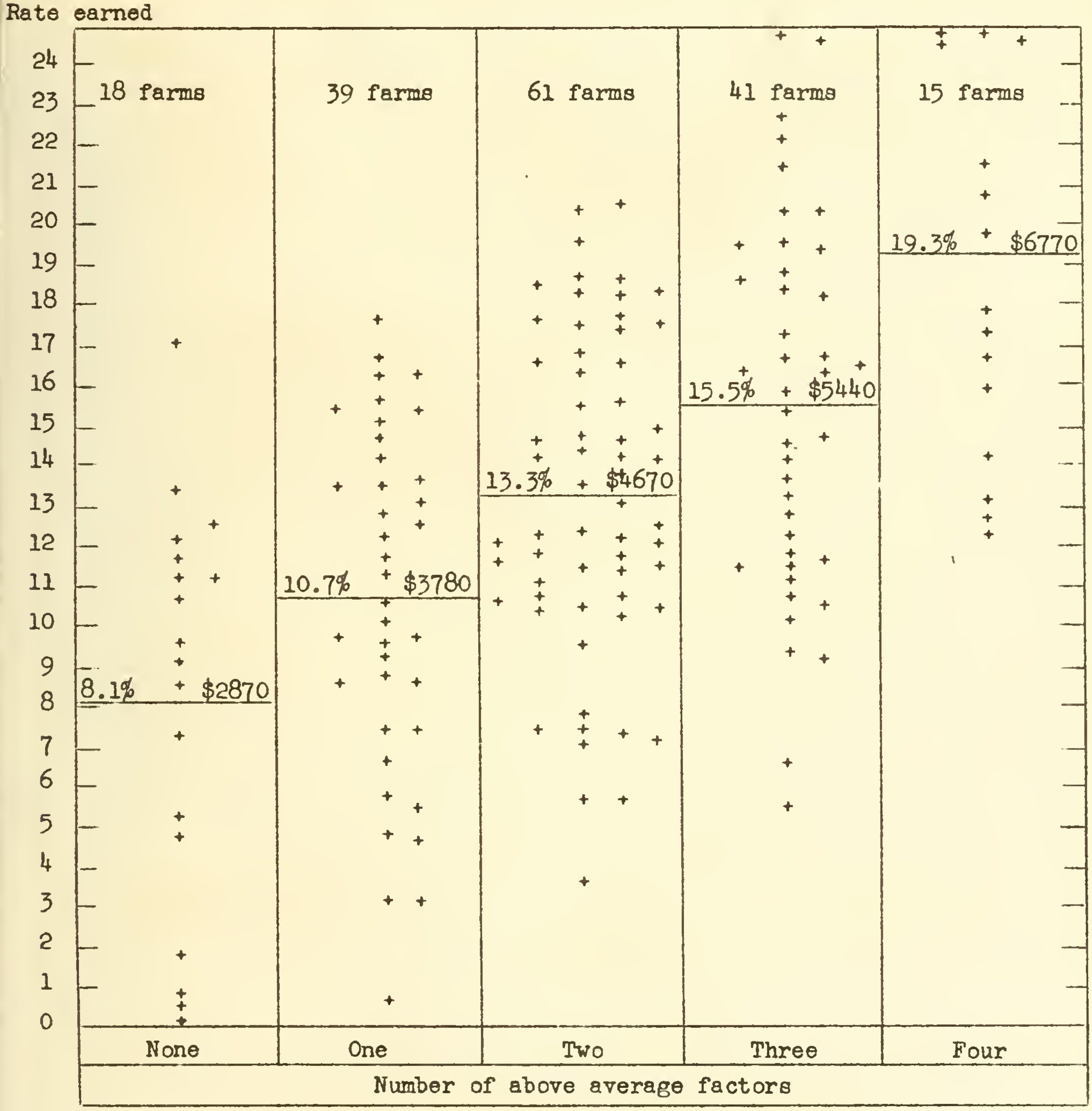
② = Approximate average of 35 most profitable farms. They had about 81 percent of normal machinery cost.

③ = Approximate average of 35 least profitable farms. They had about 100 percent of normal machinery cost.

④ = Approximate average of 35 farms with lowest machinery cost. They earned an average rate of 15.03 percent of the total capital.

⑤ = Approximate average of 35 farms with highest machinery cost. They earned an average rate of 10.20 percent of the total capital.

Chart 9.--Number of Above-Average Factors as Related to the Rate Earned on the Total Farm Capital



The figures above the line across each column are the rate earned for the group of farms and the average net earnings per farm obtained by applying the rate earned of the group of farms to the average capital ($35,158) of all 174 farms. The four efficiency factors considered were value per tillable-acre of crops, livestock efficiency, labor costs, and machinery costs.

THREE-YEAR REPORT

ON 193 FARMS IN THE

ILLINOIS VALLEY

FARM BUREAU FARM MANAGEMENT SERVICE

1943-1944-1945

A RECIPE FOR GOOD FARMING

SOUND LAND USE AND SOIL CONSERVATION PROGRAM
GOOD ROTATION AND FIELD ARRANGEMENT
SUITABLE KIND AND AMOUNT OF LIVESTOCK
HIGH CROP YIELDS
EFFICIENT LIVESTOCK
THOUGHTFUL USE OF LABOR
EFFECTIVE POWER AND MACHINERY
CONSERVATIVE BUILDINGS AND FENCES
ATTENTION TO PRICES OF PRODUCTS SOLD
LARGE ENOUGH BUSINESS FOR GOOD LIVING

mixed with

CONSTANT STUDY OF FARM BUSINESS
TIMELINESS AND REGULARITY
KINDNESS--CLEANLINESS--THOROUGHNESS
WILL TO DO A GOOD JOB
LOVE OF FARM WORK AND FARM LIFE

Extension Service in Agriculture and Home Economics
University of Illinois College of Agriculture, Urbana
in Cooperation with Farm Bureaus in Northern Illinois
October, 1946
AE2416

COOPERATIVE EXTENSION WORK IN AGRICULTURE AND HOME ECONOMICS
STATE OF ILLINOIS

College of Agriculture
University of Illinois
United States Department of Agriculture
cooperating

Extension Service in
Agriculture and Home
Economics, Urbana
Illinois

To Cooperators in the Illinois Valley
Farm Bureau Farm Management Service:

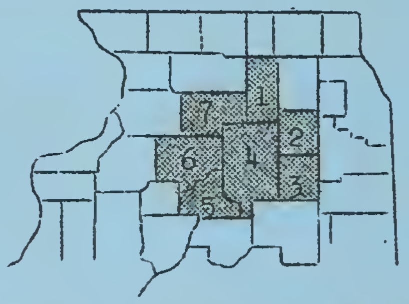
This report is based on 193 records kept in your area during the past three years and brings to you a rather complete analysis of your business. It can be of great value to those of you who study it carefully and profit from the things that it will tell you about your farming.

When "your farm" columns have been filled in and your farm located on the charts, the report will show how your farm earnings compare with other farms in your area, with other farms of the same size, and with other farms having the same source of income.

A careful study of the farm efficiency chart on page 3, after it is filled out, will show clearly for total farm net earnings and for each of several important factors that effect farm earnings just where your farm stands as compared with the average of all 193 farms, the one-fifth best, the very best, the one-fifth poorest, and the very poorest.

A careful study of Table 2, page 2, after all of the items in the two right-hand columns have been entered, will show approximately how much your earnings have been raised by better-than-average yields of each crop, better-than-average returns from feed fed to each kind of livestock, and lower-than-average labor and machinery costs. It will also show approximately how much your earnings have been lowered by low crop yields, low returns from feed fed to livestock, and higher-than-average labor and machinery costs.

The livestock data on pages 12 to 17 show the rations and production and marketing records for each kind of your livestock compared with the average of all, the most profitable one-third and the least profitable one-third.



Counties in the Illinois Valley
Farm Bureau Farm Management Service

1. DeKalb
2. Kendall
3. Grundy
4. LaSalle
5. Marshall-Putnam
6. Bureau
7. Lee

The value of the Farm Bureau Farm Management Service will show in increased earnings on your farms as you learn from your fieldman and others how those farmers who succeed best have done their work and as you apply their experiences to your farm.

I wish you continued success in the years that lie ahead.

Sincerely yours,

M. L. Mosher

M. L. Mosher, Specialist in
Farm Management Extension

THREE-YEAR REPORT ON 193 FARMS ON THE ILLINOIS VALLEY FARM BUREAU FARM MANAGEMENT SERVICE FOR 1943, 1944, AND 1945

M. L. Mosher, F. J. Reiss, M. P. Gehlbach[1]

Average annual net earnings of $8,388 per farm of 271 acres (234 acres tillable) were realized for the use of the capital and for management of 193 farms in eight north central Illinois counties during 1943, 1944, and 1945. This amount is probably at least 50 percent more than the average farm of the same size earned; farms in the service are operated under better than average management.

The average earnings amounted to 13.75 percent of the average capital of $61,016, with land valued at prewar prices. If 5 percent of the capital were deducted from the net earnings for the operator's labor, capital, and management, it would leave $6,584 a farm for the operator's labor and management. If the earnings above 5 percent of the capital were divided equally among the farm workers (including the operator), it would give $4,027 for each 12 months of labor.

Table 1.--Tenant's and Landlord's Earnings on Eighty-Two Rented Farms by Type of Lease[a]

Items	Your farm	Livestock-share leases: Soil rating better than 3.0	Livestock-share leases: Soil rating 3.0 or poorer	Crop-share and crop-share-cash	Cash rent only
Number of farms	______	30	19	24	
Size of farm--total acres	______	252	306	222	29
Tenant's share of business					
Capital	$______	$ 11707	$ 12122	$ 11326	$ 2086
Returns for labor, capital and management	______	4616	4249	5266	873
Interest on capital at 5 percent	______	585	606	566	104
Labor and management earnings	______	4031	3643	4700	768
Cash income					
Total cash receipts	$______	$ 11130	$ 12715	$ 12480	$ 2501
Total cash expenses	______	6395	8370	7607	1567
Cash balance	______	4735	4345	4873	933
Landlord's share of business					
Capital	$______	$ 48513	$ 49529	$ 36445	$ 4026
Returns for use of capital	______	4935	5014	3623	151
Rate earned on capital--percent	______	10.17	10.12	9.94	3.7
Total farm business					
Total capital per acre	$______	$238.87	$201.31	$215.51	$209.9
Operating capital per acre	______	79.04	67.90	63.78	67.7
Net earnings per acre	______	32.67	26.21	34.28	30.8
Rate earned on total capital	______	13.68	13.02	15.90	14.6
Percent of gross income from prod.l.s.	______	82.8	86.6	65.8	81.
Percent of tillable land in:					
All grain and silage crops	______	72.8	71.6	76.4	75.
All hay and pasture	______	25.6	26.2	22.4	22.
Biennial and perennial legumes	______	21.6	21.6	20.7	20.
Percent of farm tillable	______	87.4	81.0	89.4	80.
Value of land per acre	$______	$128.14	$104.44	$123.72	$114.8

[a] See page 7 for discussion of tenant's and landlord's earnings.

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[1] The project is under the direct supervision of M. L. Mosher. F. J. Reiss supervised the clerical work and helped prepare the report. M. P. Gehlbach is fieldman in the area.

Table 2.--Some Factors That Affect Farm Earnings and That Are Used on the Farm Efficiency Chart on the Opposite Page

Item			Column 1 Your return per $100 capital	Column 2 Average returns per $100 capital[a]	Percent your farm is of average (% Col. 1 is of 2)	Annual value of your crops and livestock	
Returns for capital and management..................			$	$13.75	%	Above average	Below average
GROSS EARNINGS FACTORS							
Crop yields	Your acres	Average price	Your yields	Average yields[b]			
Corn		$1.04			%	$	$
Oats		.69			%		
Wheat		1.48			%		
Soybeans		1.86			%		
Total crop value per acre			$	$	%	$	$
Livestock returns			Your returns	Average returns[c]			
Cattle-............			$	$	%	$	$
Cattle-............					%		
Hogs.....................					%		
Sheep....................					%		
Poultry..................					%		
Total livestock returns			$	$	%	$	$
Total crops and livestock..			$	$	XXX %	$	$
						Annual cost of your labor and machinery	
TWO COST FACTORS			Your cost	Average costs[d]		Below Average	Above average
Labor......................			$	$	%	$	$
Machinery and power..........					%		
Total of two cost factors..			$	$	XXX %	$	$
TOTAL OF INCOME AND COST FACTORS						Favorable $	Unfavorable $

ORGANIZATION OF THE FARM	Your farm	Average farm
Size of farm--total acres......................		271
Percent of farm tillable........................		86.4
Percent of tillable land in biennial and perennial legumes..		19.7
Feed fed per acre to productive livestock........	$	$35.30

a/ This is the average annual net earnings per $100 capital in your area. Expressed as a percentage figure, it is the rate earned on the total capital investment.

b/ These are the average annual yields on soils similar to yours in your area.

c/ These are the average annual returns for your area for the same value of feed as you fed to your kinds of livestock.

d/ These are approximately average annual labor and machinery and power costs of farms in your area that had the same amounts of work on crops and livestock as you had. Average machinery and power costs are for farms that had little or no income from custom work.

Chart 1.--Farm Efficiency Chart

Net farm earnings--percent of average returns per $100 capital	Gross earnings factors											Cost factors		Soil improvement factors	
	Crop yields--percent of average on similar soils					Livestock returns--percent of average from same feed									
	Corn	Oats	Wheat	Soybeans	Value of all crops	Cattle	Cattle	Hogs	Sheep	Poultry	All livestock	Labor--percent of average of similar farms	Machinery--percent of average of similar farms	Percent of tillable land in biennial and perennial legumes	Feed per acre to productive livestock--dollars
199	153	154	152	145	142	150	150	150	200	213	133	54	42	41	110
The best one-fifth of the farms in each factor comes between this line and the next line below.															
126	110	116	117	110	112	113	113	110	135	122	110	82	71	26	52
100	100	100	100	100	100	100	100	100	100	100	100	98	90	20	35
The average of the farms in each factor comes to this line.															
74	88	84	86	87	89	84	84	88	67	78	90	113	106	15	19
The lowest one-fifth of the farms in each factor comes between this line and the bottom line.															
1	71	53	61	33	71	56	56	52	28	33	64	154	157	0	6

Chart 2.--Size of Farm as Related to Rate Earned on Capital

Each sign (+) represents a farm, as farms were distributed from the bottom to the top of the chart according to the rate earned on capital.

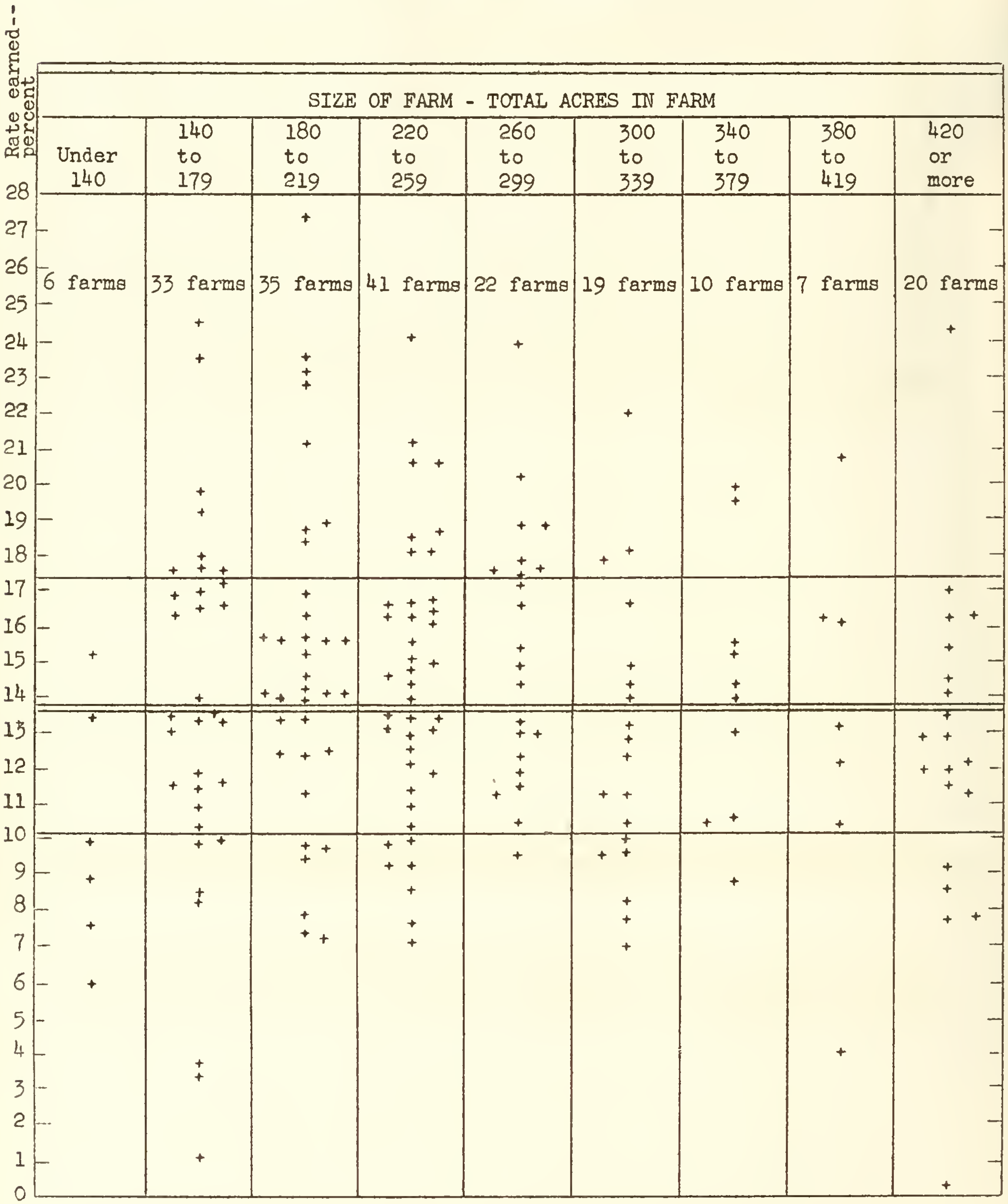


Chart 3.--Size of Farm as Related to the Operator's Labor and Management Earnings

Each sign (+) represents a farm as farms were distributed from the bottom to the top of the chart according to the operator's labor and management earnings.

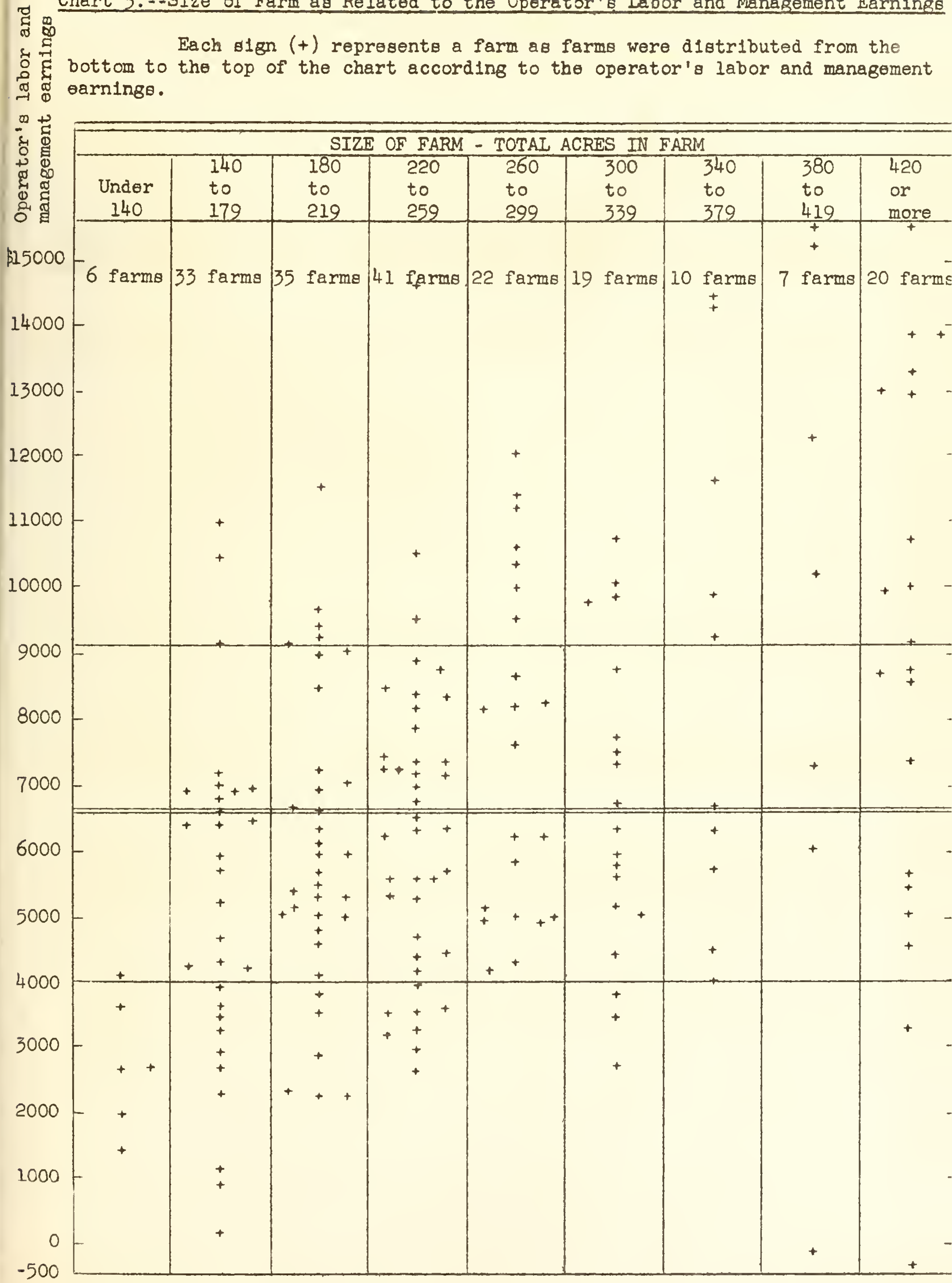
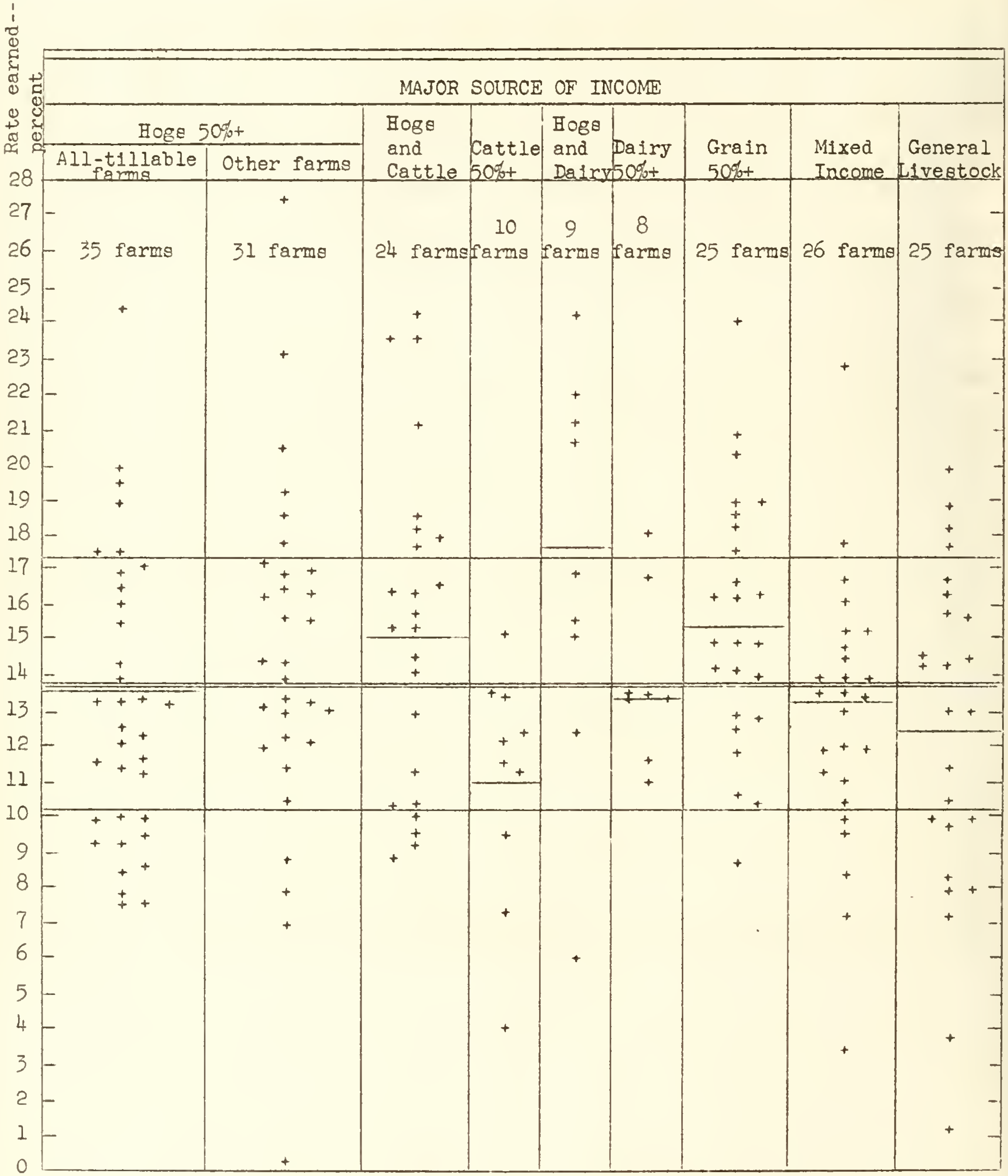


Chart 4.--Source of Farm Income as Related to Rate Earned on Capital

Each sign (+) represents a farm, as farms were distributed from the bottom to the top of the chart according to rate earned on capital.



Tenant's and landlord's earnings. See Table 1, page 1. On the basis of tenant's labor and management earnings cash rented farms brought the highest returns to the farm operator. This was partly the result of a relatively low rent charge (as compared with other kinds of leases) as is indicated by the landlord's rate earned on the capital invested, and partly the result of greater risks born by the tenant on the large amount of tenant's capital.

Crop-share tenants fared better than livestock-share tenants, while landlord's returns were about the same for both types of leases. The capital supplied by the livestock-share tenants was slightly greater than that owned by those on crop-share leases. The lower tenant earnings under livestock-share leases on the poorer land indicate a need for some adjustments on the basis of the quality of the soil.

Source of income. See Chart 4, page 6 and Table 3, pages 8 to 11. The 193 farms were divided into groups, according to the major source of income, so that each cooperator could compare his earnings with those of other farms of the same type. The purpose was not primarily to show differences in earnings of different types of farms.

Long-time studies show that on land suitable for grain and diversified livestock production there is little difference in average income over a period of years because of type of farming or kind of livestock kept. However, on some northern Illinois farms that have considerable untillable land and where 30 to 60 percent of the tillable land needs to be in legumes and grasses in order to maintain fertility and prevent erosion, cattle or sheep are essential to use the large amount of roughage that is produced.

The average earnings of the 25 grain farms were well above the average of all farms. There advantage was largely in lower expenses and a higher proportion of land in grain. However, the yields of corn and oats on the grain farms were below average even though the soil rated better than average. The small acreages of legumes and the small amount of manure used account for the lower yields.

The highest yields were obtained on the all-tillable hog, the hog and cattle, and the cattle farms. Large amounts of manure and fairly large acreages of legumes help to account for the high yields on those farms.

While the hog farms had only about average earnings and the beef cattle and dairy cattle farms were both below average, the farms that had combinations of hogs and beef cattle or hogs and dairy cattle had well above average earnings. It appears that farms that have enough cattle or sheep to utilize the legumes and grasses needed for soil improvement have an advantage over those farms that feed most of their grain to hogs which make relatively little use of hay and pasture. About 30 percent of the gross earnings of the 25 so-called grain farms came from livestock, more than one-half of which was forage consuming livestock.

Table 3.--Source of Farm Earnings as Related to Net Farm Earnings and Some Factors That Affect Earnings

Item	Your farm	Average of all farms	Hogs 50%+ All-tillable farms	Hogs 50%+ Other farms
Number of farms	--	193	35	31
Size of farm--total acres		271	223	302
Source of earnings--percent of gross earnings	(%)	(%)	(%)	(%)
All cattle		20.7	16.7	15.8
Dairy sales		8.9	5.3	5.3
Hogs		41.8	66.2	67.8
Sheep and wool		.9	.6	1.3
Poultry and eggs		3.8	4.2	2.8
Total productive livestock	( )	(76.1)	(93.0)	(93.0)
Feed, grain, and seeds		18.8	2.2	2.8
AAA receipts		1.6	1.4	1.2
Miscellaneous		3.5	3.4	3.0
Capital investments per farm				
Land	$	$32842	$30419	$30818
Land improvements		1251	1179	1348
Farm buildings		7095	6567	6676
Operating capital		19828	19322	20649
Total	$	$61016	$57487	$59491
Farm earnings				
Total cash receipts	$	$22621	$21488	$23956
Total cash expenses		12215	12007	13770
Cash balance	$	$10406	$ 9481	$10186
Total inventory changes		-679	-340	-678
Farm products used in household		452	466	472
Total farm and family earnings (receipts less expenses)[a]	$	$10179	$ 9607	$ 9980
Family labor		544	576	558
Returns for capital, operator's labor, and management	$	$ 9635	$ 9031	$ 9422
Operator's labor		1247	1227	1238
Returns for capital and management	$	$ 8388	$ 7804	$ 8184
Returns per $100 of capital[b] (rate earned on capital)		13.75	13.57	13.76
Interest on capital at 5 percent		3051	2875	2975
Labor and management earnings		6584	6156	6447
Returns for all labor and management[c]		8175	7525	8188
Returns per 12 months of man labor for labor and management		4027	3985	3844
Farm capital and earnings per acre				
Capital--Land	$	$121.09	$136.42	$101.91
Land improvements		4.61	5.29	4.46
Farm buildings		26.16	29.44	22.07
Operating capital		73.11	86.65	68.28
Total capital	$	$224.97	$257.80	$196.72
Earnings--Gross earnings		58.55	69.53	59.04
Gross expenses		27.62	34.53	31.98
Net earnings	$	$ 30.93	$ 35.00	$ 27.06

[a] "Receipts less expenses" is a farm accounting name for the total farm and farm family earnings. On rented farms it includes both the tenant's and landlord's shares of earnings.

Table 3.--Source of Farm Earnings as Related to Net Farm Earnings and Some Factors That Affect Earnings (continued)

Hogs and cattle 60%+	Cattle 50%+	Hogs and dairy 60%+	Dairy cattle 50%+	Grain 50%+	General farms	
					Mixed income	Livestock 60%+
24	10	9	8	25	26	25
291	372	223	220	301	259	257
(%)	(%)	(%)	(%)	(%)	(%)	(%)
37.6	66.2	5.7	14.0	7.8	11.9	14.4
3.3	.6	32.7	48.3	8.3	8.8	10.9
41.3	20.0	42.6	17.6	11.4	26.9	34.9
1.1	1.0	.4	--	.1	1.1	1.3
4.1	1.6	4.3	3.1	2.6	3.9	7.6
(87.4)	(89.4)	(85.7)	(83.0)	(30.2)	(52.6)	(69.1)
7.5	6.7	7.8	11.8	64.7	41.6	24.7
1.7	1.8	1.2	1.4	1.9	2.1	1.8
3.4	2.1	5.3	3.8	3.2	3.7	4.4
$36542	$45450	$24706	$24123	$40416	$32771	$28370
1473	2316	972	650	1269	1070	1051
7800	12187	7337	8914	6151	6331	6712
24792	43128	15847	16124	16663	16054	15139
$70607	$103081	$48862	$49811	$64499	$56226	$51272
$31226	$51095	$17972	$16697	$19359	$17211	$15358
18796	34977	8039	7825	7347	7578	7757
$12430	$16118	$ 9933	$ 8872	$12012	$ 9633	$ 7601
-538	-4087	-40	-737	-812	-670	-14
563	382	382	515	397	409	438
$12455	$12413	$10275	$ 8650	$11597	$ 9372	$ 8025
572	150	391	717	519	718	455
$11883	$12263	$ 9884	$ 7933	$11078	$ 8654	$ 7570
1277	1045	1307	1275	1227	1296	1280
$10606	$11218	$ 8577	$ 6658	$ 9851	$ 7358	$ 6290
15.02	10.88	17.55	13.37	15.27	13.09	12.27
3531	5154	2443	2490	3225	2812	2564
8352	7109	7441	5443	7853	5842	5006
10040	9818	9062	7191	9426	7319	6253
4670	3912	4623	3210	4761	3660	3344
$125.58	$122.07	$110.48	$109.84	$134.46	$126.31	$110.31
5.06	6.22	4.35	2.96	4.22	4.12	4.09
26.80	32.73	32.81	40.58	20.47	24.40	26.10
85.20	115.83	70.87	73.42	55.44	61.88	58.86
$242.64	$276.85	$218.51	$226.80	$214.59	$216.71	$199.36
64.81	60.86	64.80	66.81	53.46	51.15	45.86
28.36	30.73	26.44	36.49	20.69	22.79	21.41
$ 36.45	$ 30.13	$ 38.36	$ 30.32	$ 32.77	$ 28.36	$ 24.45

b/ The "Returns per $100 capital" when expressed as a percentage of the capital is the "rate earned on capital."

c/ The "Returns for all labor and management" is the total farm and family earnings plus payments to hired labor less five percent interest on the total capital.

Table 3.--Source of Farm Earnings as Related to Net Farm Earnings and Some Factors That Affect Farm Earnings (continued)

Item	Your farm	Average of all farms	Hogs 50%+	
			All-tillable farms	Other farms
Land use and crop system				
Percent of farm tillable		86.4	94.3	76.0
Average soil productivity rating of improved land.		2.6	2.3	3.1
Percent of tillable land in:				
Corn for grain		43.3	44.2	46.6
Corn for silage		1.6	.9	.9
All corn for grain and silage		44.9	45.1	47.5
Oats		20.4	22.6	18.6
Wheat		.8	--	1.3
Soybeans for grain		8.2	5.9	8.7
Other grain		.3	.1	.3
All grain crops--includes silage corn		74.6	73.7	76.4
All hay and pasture crops		22.8	24.6	22.5
Miscellaneous crops		2.6	1.7	1.1
Biennial and perennial legumes		19.7	21.7	20.2
First year sweet clover plowed under		2.3	1.8	1.1
Crop yields[a]				
Corn--bushels per acre		62.2	65.5	59.3
Oats--bushels per acre		50.9	52.6	49.6
Wheat--bushels per acre		27.6	--	23.5
Soybeans--bushels per acre		24.9	25.6	22.3
Total value of grain, corn silage, hay, till. past.	$	$10739	$ 9939	$10400
Value per acre		47.07	48.12	45.82
Livestock production				
Total value of feed fed to productive livestock	$	$ 9573	$11578	$13102
Total returns for all livestock (1)		12488	14813	17004
Total returns above feed cost		2915	3235	3902
Total returns at average rate (2)		12608	15349	17270
Percent of average returns--percent (1) is of (2)		99	97	98
Livestock returns per $100 feed:				
Cattle	$	$ 124	$ 115	$ 120
Hogs		134	133	133
Sheep		103	89	105
Poultry		153	148	149
Feed per acre to productive livestock		35.30	51.92	43.33
Operating costs				
Months of man labor per farm		24.4	22.7	25.6
Number of men per farm (12 months labor = 1 man)		2.03	1.89	2.13
Total labor cost (1)	$	$ 2788	$ 2561	$ 2941
Labor cost at the normal rate[b] (2)		2855	2785	3069
Percent of normal cost--percent (1) is of (2)		98	92	96
Percent of labor cost hired		38	31	40
Total machinery cost (1)	$	$ 1970	$ 1951	$ 2167
Machinery cost at normal rate[b] (2)		2200	2082	2353
Percent of normal cost--percent (1) is of (2)		90	94	92
Labor cost per crop acre	$	$13.62	$14.30	$14.51
Machinery cost per crop acre		9.62	10.90	10.69
Land improvements cost		387	337	475
Land improvements cost per acre		1.43	1.51	1.57
Farm buildings cost		575	597	612
Farm buildings cost per acre		2.12	2.68	2.02

[a] See Table 11, page 20, for average yields of grain crops for soils of different productivity ratings.

Table 3.--Source of Farm Earnings as Related to Net Farm Earnings and Some Factors That Affect Farm Earnings (concluded)

Hogs and cattle 60%+	Cattle 50%+	Hogs and dairy 60%+	Dairy cattle 50%+	Grain 50%+	General farms	
					Mixed income	Livestock 60%+
88.6	82.9	86.5	75.6	92.2	90.7	83.7
2.5	2.5	2.8	2.8	2.0	2.5	3.1
39.3	44.8	40.6	32.5	47.1	43.2	40.3
1.9	4.6	3.0	5.8	.5	.9	2.0
41.2	49.4	43.6	38.3	47.6	44.1	42.3
19.8	17.5	19.3	21.0	21.4	20.2	21.1
1.2	.7	--	1.1	.4	1.1	1.0
9.2	7.2	5.3	1.4	12.0	8.3	8.3
.8	.3	.2	--	.2	.1	.1
72.2	75.1	68.4	61.8	81.6	73.8	72.8
24.2	21.1	28.6	34.3	15.6	22.8	24.7
3.6	3.8	3.0	3.9	2.8	3.4	2.5
21.4	16.8	25.9	29.8	13.5	19.2	19.7
1.5	3.4	.9	.1	5.0	2.7	2.4
67.4	67.3	61.6	63.1	61.2	60.7	55.6
56.2	58.9	51.0	53.3	47.7	47.8	47.4
33.1	33.6	--	25.4	32.9	27.3	21.9
27.8	25.6	24.2	27.9	26.0	22.8	23.8
$12428	$16109	$ 8489	$ 7477	$12990	$10112	$ 8762
50.00	54.24	45.32	46.85	48.35	44.54	41.75
$13360	$18721	$ 8123	$ 7790	$ 3723	$ 5432	$ 6345
16940	20553	12825	12760	5211	7320	8577
3580	1832	4702	4970	1488	1888	2232
16699	21716	12043	12504	5178	7318	8587
101	95	106	102	101	100	100
$ 115	$ 107	$ 189	$ 174	$ 143	$ 131	$ 128
139	120	137	137	134	134	139
105	86	86	56	114	150	92
156	153	163	149	148	155	160
45.91	50.28	36.33	35.47	12.38	20.94	24.67
25.8	30.1	23.5	26.8	23.7	24.0	22.4
2.15	2.51	1.96	2.24	1.98	2.00	1.87
$ 2930	$ 3683	$ 2771	$ 3008	$ 2723	$ 2748	$ 2464
3116	3637	2850	3128	2637	2619	2504
94	101	97	96	103	105	98
38	69	44	34	39	28	32
$ 1948	$ 2759	$ 1449	$ 2112	$ 2005	$ 1872	$ 1668
2392	3025	2045	2199	2156	2059	1908
81	91	71	96	93	91	87
$13.23	$13.38	$17.00	$21.89	$10.70	$13.52	$13.17
8.80	10.02	8.89c/	15.37	7.88	9.20	8.92
438	602	265	259	428	323	320
1.50	1.62	1.19	1.18	1.42	1.24	1.25
659	961	493	644	488	458	477
2.26	2.58	2.20	2.93	1.62	1.77	1.86

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b/ The normal cost per farm is the average cost of farms having approximately the same amount of work to do on crops and livestock. c/ One farm had unusual receipts from custom work with machinery.

Table 4.--Dairy Cattle Enterprise[a]

Item	Your farm	Average of all farms	One-third with high returns for feed	One-third with low returns for feed
Number of farms	--	73	24	24
Number of cows in herd		15.3	14.9	12.3
Number of cows milked		14.2	13.9	11.1
Total animal units in herd		21.5	20.6	17.7
Percent of cattle units milked		66.0	67.3	63.0
Total feed to cattle--value	$	$ 2407	$ 2240	$ 2073
Total returns from cattle--1		4093	4650	2767
Total returns at average rate[b]--2		4093	3808	3525
Percent of average returns (% 1 is of 2)		100	122	78
Total returns above feed cost	$	$ 1686	$ 2410	$ 694
Returns per $100 feed		170	208	133
Rate earned on the total farm capital		14.10	16.57	11.18
Percent of gross farm income from dairy sales		20.4	21.6	14.9
Total pounds of milk produced		109060	120455	75700
Pounds of milk per cow milked		7690	8679	6794
Total pounds of beef produced		6865	6950	5703
Death loss: Pounds		697	689	600
Percent of total produced		10.2	9.9	10.5
Pounds of beef per cow in herd		448	467	465
Price received per 100 lb. cattle sold	$	$12.32	$14.17	$11.20
Total value of milk produced	$	$ 3427	$ 3686	$ 2530
Returns per 100 lb. milk produced		3.14	3.06	3.34
Feed cost per 100 lb. milk or 10 lb. beef[c]		13.55	11.79	15.62
Percent of income from dairy products		84	79	91
Pounds of protein and mineral feeds per 100 lb. concentrates		12.8	14.0	9.0
Pounds of milk per pound of concentrates		2.1	2.6	1.6
Amounts of feed per 100 lb. milk[c]				
Grain--pounds		25.4	21.2	33.2
Protein and mineral feeds--pounds		3.7	3.5	3.3
Total concentrates--pounds		29.1	24.7	36.5
Hay--pounds		40.0	33.1	45.9
Silage--pounds		42.5	42.8	40.3
Pasture--pasture days		2.2	1.9	2.4
Pasture days per animal unit		18.1	17.7	17.9

[a] Only farms which had five or more cows per farm were used in these comparisons.

[b] The average rate of returns for dairy cattle was $170 per $100 worth of feed fed.

[c] Approximately the same amount of feed is required to produce 100 pounds of milk or 10 pounds of beef.

Dairy cattle. The 73 farms that kept five or more dairy cows received an average of $170 per $100 worth of feed fed. Cost of production studies show that this return is about enough to pay all costs.

Feeding efficiency and high milk production per cow appear to be the two main factors related to the profitableness of the dairy enterprise.

Table 5.--Feeder Cattle Enterprise[a]

Item	Your farm	Average of all farms	One-third with high returns for feed	One-third with low returns for feed
Number of farms....................	--	64	21	21
Total animals units in herd...............	____	42.5	44.0	44.2
Percent of cattle units milked..........	____	1.5	1.2	1.0
Total feed to cattle--value.............	$____	$ 5850	$ 5632	$ 6536
Total returns from cattle--1.............	____	6434	6972	6356
Total returns at average rate[b]--2........	____	6434	6195	7190
Percent of average returns (% 1 is of 2)	____	100	113	88
Total returns above feed cost............	$____	$ 584	$ 1340	$ -180
Returns per $100 feed...................	____	110	124	97
Rate earned on the total farm capital.....	____	13.72	15.54	11.68
Percent of gross income from feeder cattle	____	33.7	33.4	33.5
Pounds of beef produced..................	____	29471	30439	30469
Death loss: Pounds........................	____	484	414	650
Percent of total produced......	____	1.6	1.4	2.1
Price received per 100 lb. cattle sold....	$____	$15.67	$15.60	$15.65
Price paid per 100 lb. cattle bought......	____	12.85	12.58	13.06
Feed charge per 100 lb. beef[c]............	____	19.58	18.32	21.27
Pounds of protein and mineral feeds per 100 lb. of concentrates.................	____	7.8	9.2	7.0
Amounts of feed per 100 lb. beef[c]				
Grain--pounds..........................	____	740	660	822
Protein and mineral feeds--pounds......	____	63	67	62
Total concentrates--pounds...........	____	803	727	884
Hay--pounds............................	____	287	211	270
Silage--pounds.........................	____	396	580	299
Pasture--pasture days..................	____	9	7	10
Pasture days per animal unit.............	____	60	50	72

[a] Only farms that produced 5,000 pounds or more of beef from purchased feeder cattle were used in these comparisons.

[b] The average rate of return for feeder cattle was $110 per $100 worth of feed fed.

[c] This is the feed charge for each 100 pounds of live weight of animal or 1,000 pounds of milk. Approximately the same amount of feed is required to produce 100 pounds of beef as 1,000 pounds of milk.

Feeder cattle. The average returns of $110 for each $100 worth of feed fed to feeder cattle on 64 farms were not enough to pay for the feed, labor, use of equipment, and other costs, which fact accounts for the relatively low earnings of cattle farms. See Chart 4, page 6 and Table 3, pages 8 and 9. The one-third of the farms on which cattle were most profitable did profit from the feeding operations, as shown by an average return of $124 per $100 worth of feed fed.

Comparing the 21 more profitable cattle enterprises with the 21 having a lower profit, the higher profit enterprises had a spread of 43 cents more per 100 pounds between selling and purchase prices, had a $2.95 lower feed cost per 100 pounds gain, fed 31 percent more protein feeds per 100 pounds of concentrates, and fed more silage, but less hay and pasture.

Table 6.--Mixed Cattle Enterprises and Summary of All Classes of Cattle[a]

Item	Your farm	Dairy cow herds	Dual purpose cow herds	Beef cow herds	Feeder cattle bought
Number of farms	--	73	14	19	64
Number of cows in herd	______	15.3	13.0	22.6	.7
Number of cows milked	______	14.2	4.8	1.8	.6
Total animal units in herd	______	21.5	20.0	35.0	42.5
Percent of cattle units milked	______	66.0	23.9	5.1	1.5
Total feed to cattle--value	$______	$ 2407	$ 1620	$ 2426	$ 5850
Total returns from cattle--1	______	4093	1853	2713	6434
Total returns at average rate[a]	______	4093	1853	2713	6434
Percent of average (% 1 is of 2)	______	100	100	100	100
Total returns above feed cost	$______	$ 1686	$ 233	$ 287	$ 584
Returns per $100 feed	______	170	114	112	110
Total pounds of milk produced	______	109060	27154	9823	--
Pounds of milk per cow milked	______	7690	5683	5489	--
Total pounds of beef produced	______	6865	8503	15166	29471
Death loss: Pounds	______	697	468	819	484
Percent of total produced	______%	10.2	5.5	5.4	1.6
Pounds of beef per cow in herd	______	448	653	670	--
Total value of milk produced	$______	$ 3427	$ 731	$ 283	$ --
Returns per 100 lb. milk produced	______	3.14	2.69	2.88	--
Price rec'd. per 100 lb. cattle sold	______	12.32	13.54	15.99	15.67
Price paid per 100 lb. cattle bought	______	--	--	--	12.85
Feed charge per 100 lb. beef[b]	______	13.55	14.44	15.02	19.58
Pounds of protein and mineral feeds per 100 lb. concentrates	______	12.8	6.1	3.1	7.8
Amounts of feed per 100 lb. beef[b]					
Grain--pounds		254	325	331	740
Protein and mineral feeds--pounds	______	37	21	11	63
Total concentrates--pounds	______	291	346	342	803
Hay--pounds	______	400	492	396	287
Silage--pounds	______	425	6	220	396
Pasture--pasture days	______	22	34	48	9
Pasture days per animal unit	______	181	192	220	60

[a] The average rate of return for each class of cattle is given on the line for "Returns per $100 feed."

[b] This is the feed used per 100 pounds of beef or 1,000 pounds of milk, which require approximately the same amounts of feed.

Dual-purpose cattle. A few herds of mixed dairy- and beef-cow herds were included in this group. Returns of $114 for each $100 worth of feed fed to these cattle were not enough to pay for feed and the other costs of production.

Beef cow herds. This class of cattle brought $112 for each $100 worth of feed fed. They contributed $1,582 per farm above the cost of silage and concentrates as a return on the hay and pasture used and the other costs of production incurred.

Table 7.--Hog Enterprise[a]

Item	Your farm	Average of all farms	One-third with high returns for feed	One-third with low returns for feed	Feeder pig enterprise[c]
Number of farms	--	163	54	54	6
Total feed to hogs--value	$____	$ 5614	$ 5346	$ 5390	$ 5402
Total returns for hogs--1	____	7555	8177	6278	6562
Total returns at average rate[b]--2	____	7555	7217	7276	7292
Percent of average (% 1 is of 2)	____	100	113	86	90
Total returns above feed cost	$____	$ 1941	$ 2831	$ 888	$ 1160
Returns per $100 feed	____	135	153	116	121
Rate earned on total farm capital	____%	13.83	16.18	11.00	12.76
Percent of gross farm income from hogs	____	47.6	47.0	43.7	24.3
Number of litters farrowed	____	34	33	30	5
Pigs weaned per litter	____	6.4	6.8	6.1	5.9
Total pounds of pork produced	____	56422	59810	48052	51074
Death loss: Pounds	____	1184	955	1625	909
Percent of total produced	____	2.1	1.6	3.4	1.8
Average weight per hog sold	____	262	262	266	280
Percent of sales on hand January 1	____	39.1	35.1	49.0	30.8
Price received per 100 lb. sold	$____	$13.77	$13.91	$13.69	$13.80
Feed charge per 100 lb. pork produced	____	9.95	8.94	11.22	10.58
Pounds of protein and minerals per 100 lb. concentrates	____	9.4	9.5	8.9	6.1
Amounts of feed per 100 lb. pork					
Grain--pounds	____	432	387	489	497
Protein and mineral feeds--pounds	____	45	40	48	32
Total concentrates--pounds	____	477	427	537	529
Hay--pounds	____	4	3	4	1
Pasture--pasture days	____	1.5	1.4	1.5	1.0

[a] Farms were divided into groups according to the returns per $100 feed fed to hogs. Only farms producing 10,000 pounds or more per farm were used in this comparison.

[b] The average rate of return for feed fed to hogs was $135 per $100 worth of feed fed.

[c] Only farms that bought more pigs than were raised were included in this analysis. An average of 316 pigs per farm, weighing an average of 141 pounds, were bought at an average price of $13.41 per 100 pounds. These farms are not included in the average of all farms nor in the comparison between the high and low thirds.

Hogs. The production of hogs was the major enterprise on the largest number of farms in this area. The average return of $135 per $100 worth of feed fed was about enough to pay for the feed, labor, and other costs.

Comparing the 54 higher profit hog enterprises with the 54 lower profit, the higher profit enterprises weaned about one pig more per litter; had only one-half the death loss after weaning; sold a much larger portion of their hogs before January 1; fed 7 percent more protein feeds in their rations, but fed 20 percent less total concentrates per 100 pounds gain; and produced pork with 20 percent less feed costs.

Table 8.--Sheep Enterprises[a]

Item	Your farm	Native flocks			Native and range mixed
		Average of all farms	1/3 with high returns	1/3 with low returns	
Number of flocks....................	--	27	9	9	11
Animal units per flock...............		6.5	4.3	7.6	11.3
Total feed to sheep--value...........	$	$ 375	$ 226	$ 471	$ 991
Total returns from sheep--1..........		388	341	371	986
Total returns at average rate[b]--2...		388	233	485	986
Percent of average returns (% 1 is of 2)....................		100	146	77	100
Total returns above feed cost........	$	$ 13	$ 115	$ -100	$ -5
Returns per $100 feed................		103	151	79	100
Pounds of mutton and wool produced...		2712	2151	2871	6348
Death loss: Pounds...................		398	312	413	1002
Percent of total produced		14.7	14.5	14.4	15.8
Price received per 100 lb. sold......	$	$14.96	$15.67	$15.53	$14.49
Price paid per 100 lb. bought........		--	--	--	13.58
Feed charge per 100 lb. produced.....		13.84	10.53	16.39	15.61
Pounds of protein and mineral feeds per 100 lb. concentrates...........		2.8	4.3	2.3	2.2
Amounts of feed per 100 lb. produced					
Grain--pounds........................		242	154	346	442
Protein and mineral feeds--pounds..		7	7	8	10
Total concentrates................		249	161	354	452
Hay--pounds..........................		367	319	297	239
Silage--pounds.......................		40	--	72	19
Pasture--pasture days...............		58	47	65	34
Pasture days per animal unit.......		240	237	247	189

[a] Only farms that produced 1,000 pounds or more of mutton and wool were used in this comparison.

[b] The average rate of return was $103 per $100 worth of feed fed to native flocks and $100 per $100 worth of feed fed to mixed native and range sheep.

Sheep. While the raising or feeding of sheep is a minor enterprise in this area, about 40 farms did have some income from them. Twenty-seven native flocks brought average returns of $388 per farm. This was $103 per $100 worth of feed fed. Much of the feed charged to sheep on some farms was for pasture that would not have been used for other livestock.

One-third of the native flocks showed average profitable returns of $151 per $100 worth of feed fed, while one-third brought only 79 percent of the value of the feed. Comparing the 9 higher profit flocks with the 9 lower profit flocks, the higher profit flocks had about the same death loss, fed more protein concentrates, fed less than one-half as much concentrates per 100 pounds gain, and produced mutton and wool at a little more than one-half the feed cost.

The eleven farms that fed range sheep received an average return of $100 per $100 worth of feed fed, which left nothing to pay for labor and other costs.

Table 9.--Poultry Enterprise[a]

Item	Your farm	Average of all farms	One-third with high returns for feed	One-third with low returns for feed
Number of farms	--	133	44	44
Average number of hens per farm	______	162	161	164
Total value of feed to poultry	$______	$ 581	$ 478	$ 660
Total returns from poultry--1	______	902	967	794
Total returns at average rate[b]--2	______	902	740	1024
Percent of average returns (% 1 is of 2)	______	100	131	78
Total returns above feed cost	$______	$ 321	$ 489	$ 134
Returns per $100 feed	______	155	202	120
Total returns per hen	______	5.57	6.01	4.84
Total feed cost per hen	______	3.59	2.97	4.04
Returns per hen above feed cost	______	1.98	3.04	.80
Number of eggs produced per hen	______	144	161	128
Percent of eggs laid in Oct., Nov., Dec.	______	25.6	25.2	25.1
Average price of eggs per dozen	______	$ .36	$ .36	$ .36
Percent of income from eggs sold	______	68	70	66
Amounts of feed per hen				
Grain--pounds	______	106	86	120
Protein, mineral, and mixed feeds--pounds	______	41	35	46
Total concentrates--pounds	______	147	121	166

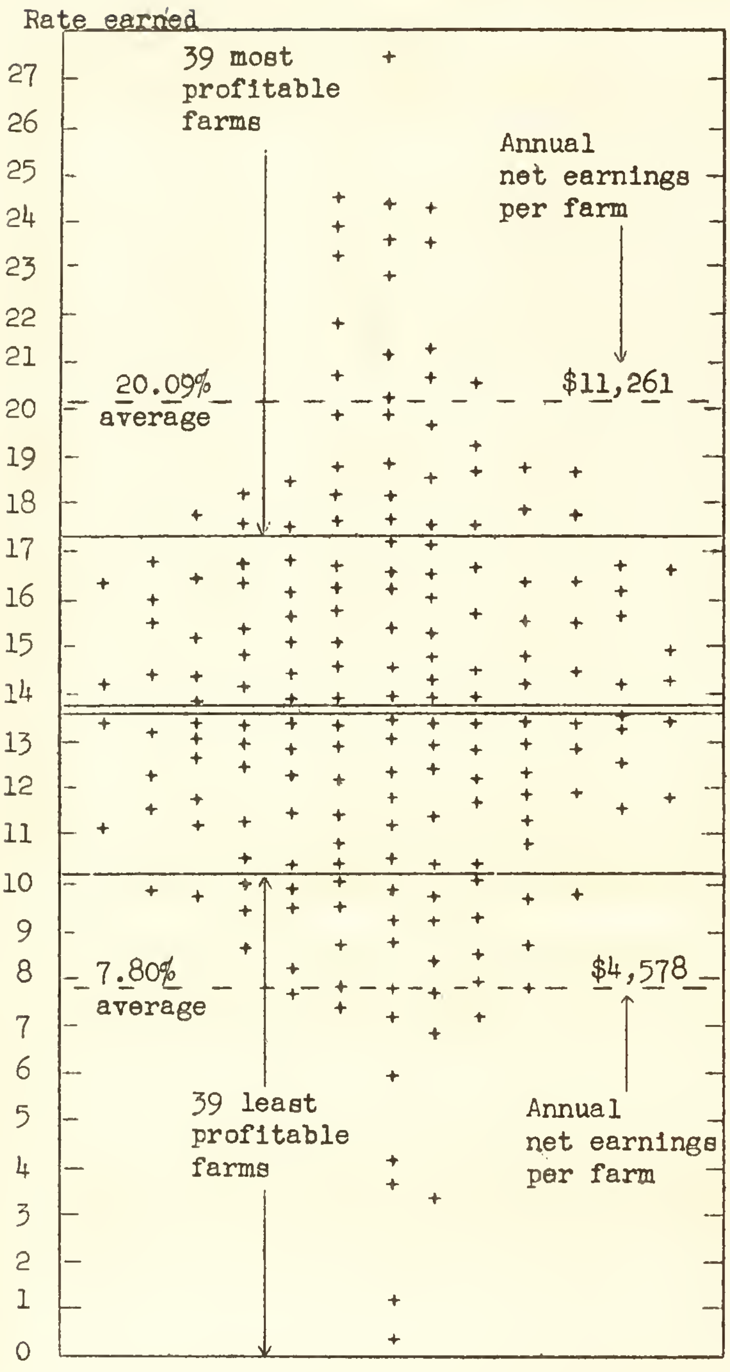
[a] Only farms that had 50 or more hens were used in these comparisons.

[b] The average rate of returns for poultry was $155 per $100 worth of feed fed.

Poultry. Poultry on 133 farms brought average returns of $902 per farm, which was $155 returns per $100 worth of feed fed. This was not enough to pay for all feed, labor, equipment, and other costs. The one-third higher profit flocks brought $3.04 per hen above feed costs and the one-third lower profit flocks brought only $.80 per hen above feed costs.

Comparing the 44 higher profit flocks with the 44 lower-profit flocks, the higher profit flocks produced 33 more eggs per hen; produced about the same number of eggs during October, November and December; received 4.0 percent more of their gross poultry income from eggs sold; fed 45 pounds less feed per hen; and received the same price per dozen of eggs sold.

Chart 5.--Differences in Farm Earnings



The 193 farms included in this report differed in annual net earnings from one that earned a net of only $.18 to one that earned $27.37 for each $100 invested in land, buildings, and operating capital. (This is another way of saying that the rate earned on the total capital varied from .18 percent to 27.37 percent.) See Chart 5, to the left.

The net earnings of the 39 most profitable farms varied from $17.30 to $27.34 per year, while the net earnings of the 39 least profitable farms varied from $.18 to $10.12 per year for each $100 worth of capital investment. The 39 most profitable farms earned an annual average of $20.09, while the 39 least profitable farms earned an average of only $7.80 per farm for each $100 of total capital.

Table 10--Rate Earned on the Total Capital as Related to Some Factors That Affect Earnings

Item	Your farm	Average of all 193 farms	39 farms with high rate earned	39 farms with low rate earned
Rate earned on investment................	______%	13.75%	20.09%	7.80%
Labor and management earnings per operator	$______	$ 6584	$ 9728	$ 3034
Labor and management earnings per man.....	______	4027	5747	2306
Size of farm--total acres................	______	271	248	262
Percent of land tillable.................	______	86.4	88.8	87.5
Percent of tillable land in legumes[a].....	______	19.7	19.7	19.9
Feed per acre--value.....................	$______	$35.30	$40.55	$32.79
Value of crops on tillable land[b].........	$______	$10739	$10955	$ 9244
Average value on similar soil............	______	10739	10316	10301
Percent of average value...............	______	100	106	90
Returns from productive livestock.........	$______	$12488	$14754	$ 9893
Returns at average rate..................	______	12608	13515	11316
Percent of average returns.............	______	99	109	87
Labor cost per farm......................	$______	$ 2788	$ 2656	$ 2793
Average cost for same work...............	______	2855	2933	2636
Percent of average cost................	______	98	90	106
Power and machinery cost per farm.........	$______	$ 1970	$ 1652	$ 2107
Average cost for same work[c]...............	______	2200	2220	2032
Percent of average cost................	______	90	74	104

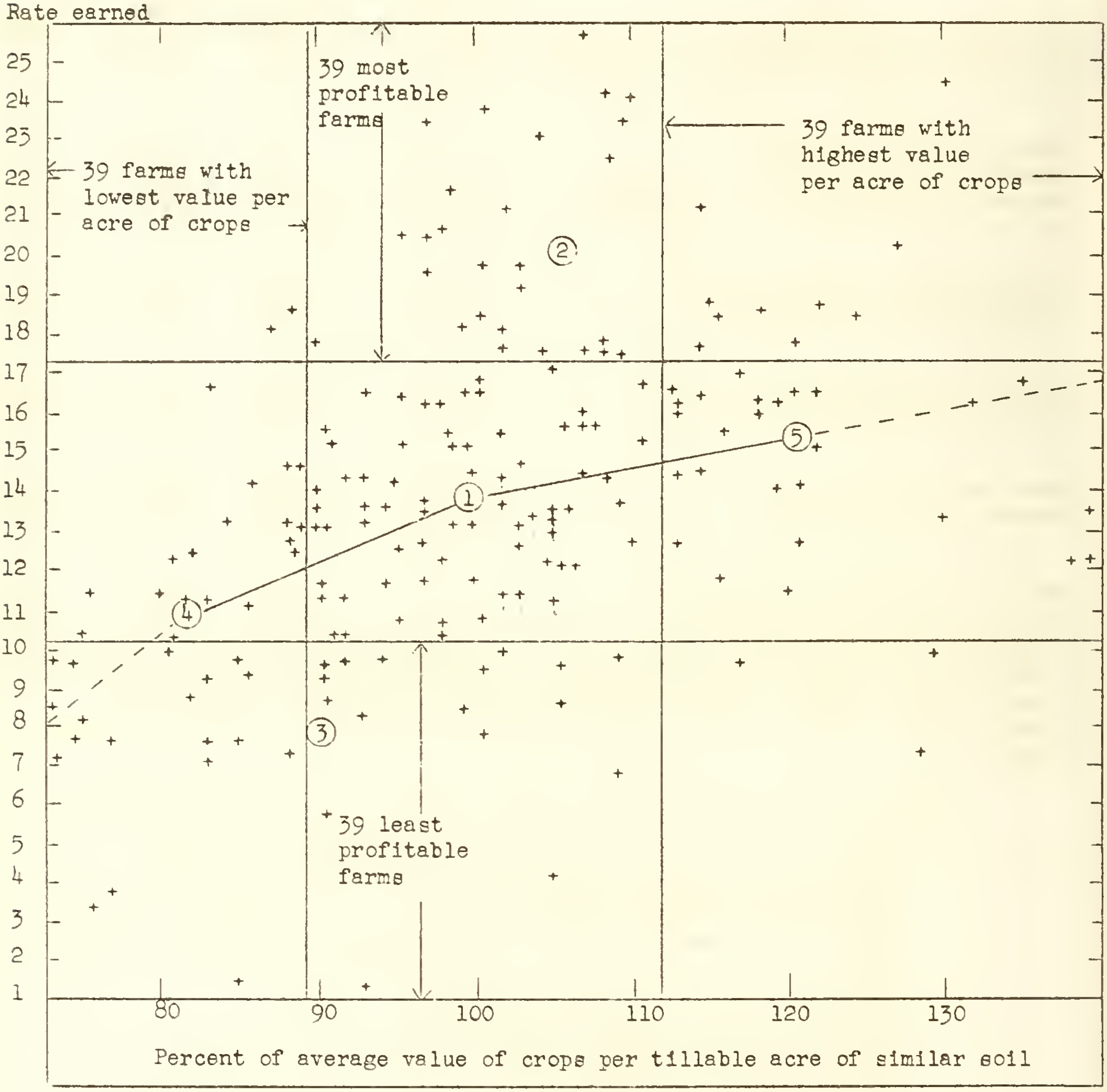
[a] This is the percent of tillable land left down in biennial and perennial legumes.
[b] This includes grain, corn for silage, hay, and pasture on tillable land.
[c] This is the average cost for farms that have little or no income from custom work.

Compared with the 39 least profitable, the 39 most profitable farms:

1. Earned $12.29 more per year for each $100 worth of capital.
2. Earned $6,694 more per operator for labor and management and $3,441 more per 12 months of all labor.
3. Were 14 acres smaller with a slightly larger proportion of tillable land.
4. Grew approximately the same proportion of legumes.
5. Fed $7.76 worth of feed more per acre.
6. Produced $639 more rather than $1,057 less than average value of crops from their tillable land.
7. Received $1,239 more rather than $1,423 less than average from their feed fed to livestock.
8. Had $277 less rather than $157 more than average labor costs for their work on crops and livestock.
9. Had $568 less rather than $75 more than average machinery costs for their work on crops and livestock.

Chart 6.--Value of Crops Per Acre as Related to the Rate Earned on Capital

Each sign (+) represents a farm, as the farms are distributed from the left to the right of the chart according to the percent of average value of crops per tillable acre on similar soil and from the bottom to the top according to the rate earned on the total farm capital.



① = Average of 193 farms.

② = Approximate average of 39 most profitable farms. They produced 106 percent of average crop value per tillable acre. See Table 10, page 19.

③ = Approximate average of 39 least profitable farms. They produced 90 percent of average crop values per tillable acre. See Table 10, page 19.

④ = Approximate average of 39 farms with lowest crop values per tillable acre. They earned an average of 10.76 percent of total capital. See Table 11, page 21.

⑤ = Approximate average of 39 farms with highest crop values per tillable acre. They earned an average of 15.23 percent of total capital. See Table 11, page 21.

Table 11.--Value of Crops Per Acre as Related to the Rate Earned on Capital and Some Factors That Affect Earnings[a]

Item	Your farm	Average of all 193 farms	39 farms with high crop values[a]	39 farms with low crop values
Rate earned on investment.................	______%	13.75%	15.23%	10.76%
Labor and management earnings per operator	$______	$ 6584	$ 7800	$ 4604
Labor and management earnings per man.....	______	4027	4623	3050
Size of farm--total acres.................	______	271	257	278
Percent of land tillable..................	______	86.4	84.1	88.3
Percent of tillable land in legumes[b].....	______	19.7	19.2	19.4
Feed per acre--value......................	$______	$35.30	$46.06	$24.90
Value of crops on tillable land[c].........	$______	$10739	$11755	$ 9369
Average value on similar soil.............	______	10739	9676	11466
Percent of average value..................	______	100	121	82
Returns from productive livestock.........	$______	$12488	$14882	$ 9174
Returns at average rate...................	______	12608	15107	9458
Percent of average returns................	______	99	99	97
Labor cost per farm.......................	$______	$ 2788	$ 2881	$ 2633
Average cost for same work................	______	2855	2933	2620
Percent of average cost...................	______	98	98	100
Power and machinery cost per farm.........	$______	$ 1970	$ 1947	$ 1918
Average cost for same work[d]...............	______	2200	2228	2038
Percent of average cost...................	______	90	87	94

[a] The separation of farms according to crop values was based on the percentage acre-crop-value of all grain, silage, hay, and pasture crops on tillable land having the same soil productivity rating. See Table 15, page 29.

[b] This is the percent of tillable land left down in biennial and perennial legumes.

[c] This includes grain, corn for silage, hay, and pasture on tillable land.

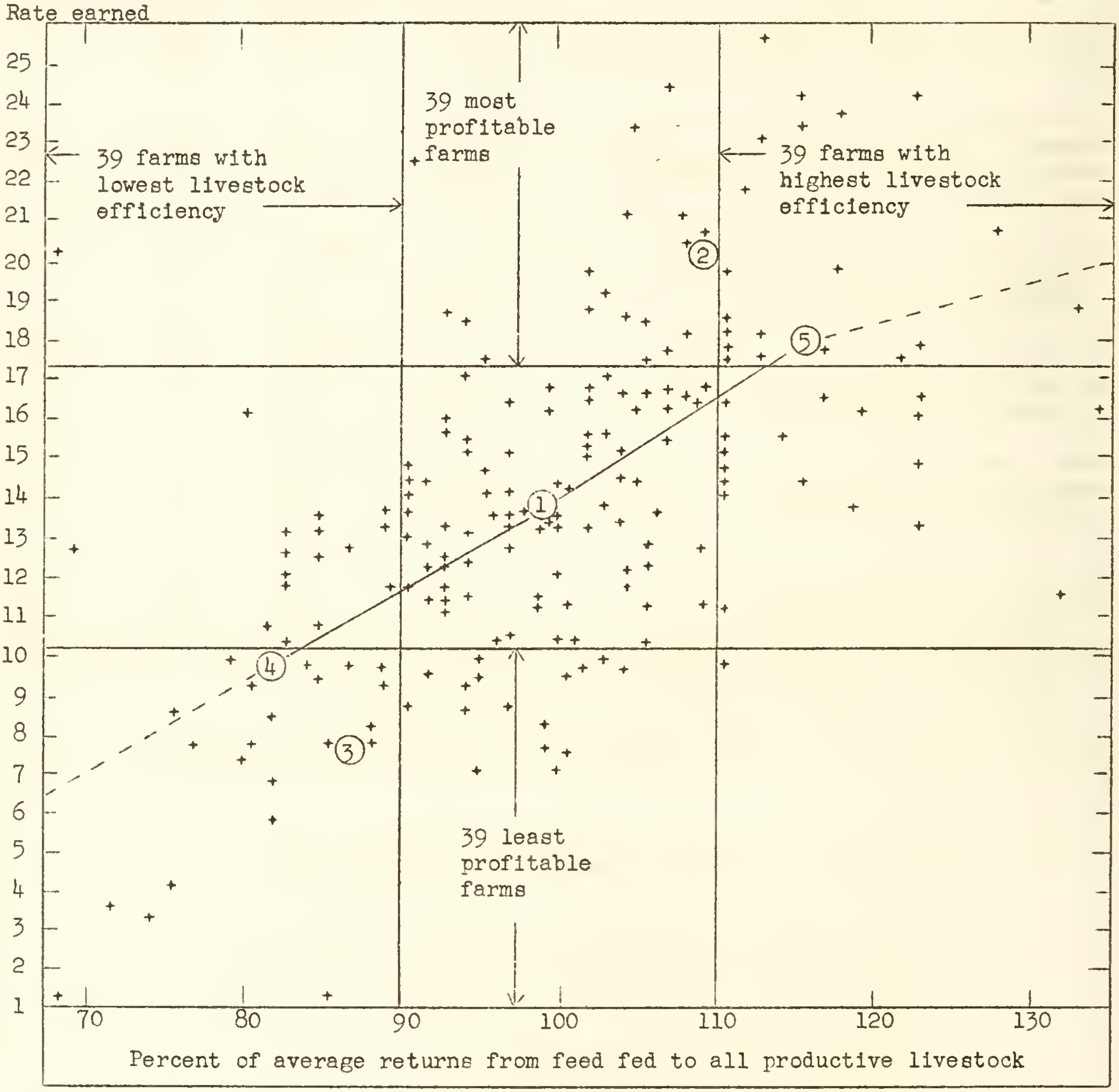
[d] This is the average cost for farms that have little or no income from custom work.

Compared with the 39 farms having the lowest crop values, the 39 farms having the highest crop values per tillable acre of similar soil:

1. Earned $4.47 more per year for each $100 worth of capital.
2. Earned $3,196 more per operator for labor and management and $1,573 more per 12 months of all labor.
3. Were 21 acres smaller with a little smaller proportion of tillable land.
4. Grew approximately the same proportion of legumes.
5. Fed nearly twice as much feed per acre.
6. Produced $2,079 more rather than $2,097 less than average value of crops from their tillable land.
7. Received $225 more rather than $284 less than average from their feed fed to livestock.
8. Had $52 less rather than $13 more than average labor costs for their work on crops and livestock.
9. Had $281 less rather than $120 less than average machinery costs for their work on crops and livestock.

Chart 7.--Livestock Efficiency as Related to the Rate Earned on Capital

Each sign (+) represents a farm, as the farms are distributed from the left to the right of the chart according to the percent of average returns from feed fed to all productive livestock and from the bottom to the top according to the rate earned on the total farm capital.



① = Average of 193 farms.

② = Approximate average of 39 most profitable farms. They had 109 percent of average returns from all livestock. See Table 10, page 19.

③ = Approximate average of 39 least profitable farms. They had 87 percent of average returns from all livestock. See Table 10, page 19.

④ = Approximate average of 39 farms with least efficient livestock. They earned an average rate of 9.86 percent of total capital. See Table 12, page 23.

⑤ = Approximate average of 39 farms with most efficient livestock. They earned an average rate of 17.96 percent of total capital. See Table 12, page 23.

Table 12.--Livestock Efficiency as Related to the Rate Earned on Capital and Some Factors That Affect Earnings

Item	Your farm	Average of all 193 farms	39 farms with most efficient livestock	39 farms with least efficient livestock
Rate earned on investment................	______%	13.75%	17.96%	9.86%
Labor and management earnings per operator	$______	$ 6584	$ 8436	$ 4118
Labor and management earnings per man.....	______	4027	5302	2830
Size of farm--total acres................	______	271	248	282
Percent of land tillable.................	______	86.4	88.2	86.9
Percent of tillable land in legumes[a].....	______	19.7	19.9	18.9
Feed per acre--value.....................	$______	$35.30	$29.76	$31.81
Value of crops on tillable land[b].........	$______	$10739	$10477	$10553
Average value on similar soil............	______	10739	10270	10661
Percent of average value................	______	100	102	99
Returns from productive livestock.........	______	$12488	$11474	$ 9765
Returns at average rate..................	______	12608	9890	11840
Percent of average returns..............	______	99	116	82
Labor cost per farm......................	$______	$ 2788	$ 2469	$ 2805
Average cost for same work...............	______	2855	2641	2786
Percent of average cost.................	______	98	93	101
Power and machinery cost per farm.........	$______	$ 1970	$ 1667	$ 2096
Average cost for same work[c]...............	______	2200	2022	2171
Percent of average cost.................	______	90	82	97

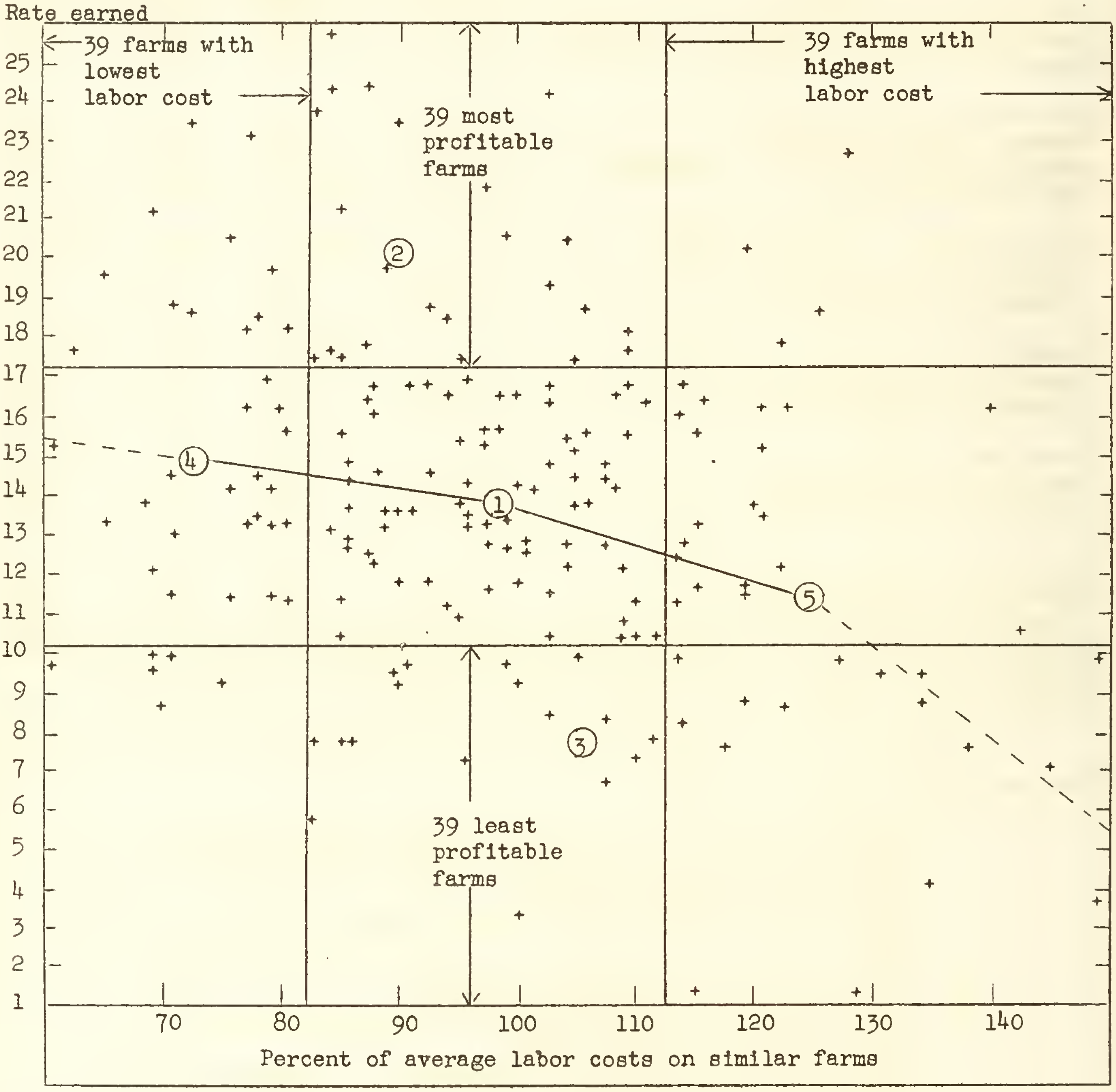
a/ This is the percent of tillable land left down in biennial and perennial legumes.
b/ This includes grain, corn for silage, hay, and pasture on tillable land.
c/ This is the average cost for farms that have little or no income from custom work.

Compared with the 39 farms with the least efficient livestock, the 39 farms with the most efficient livestock:

1. Earned $8.10 more per year for each $100 worth of capital.
2. Earned $4,318 more per operator for labor and management and $2,472 more per 12 months of all labor.
3. Were 34 acres smaller with a little larger proportion of tillable land.
4. Had a little larger proportion of tillable land in legumes.
5. Fed $2.05 worth of feed less per acre.
6. Produced $207 more rather than $108 less than average value of crops from their tillable land.
7. Received $1,584 more rather than $2,075 less than average from their feed fed to livestock.
8. Had $172 less rather than $19 more than average labor costs for their work on crops and livestock.
9. Had $355 less rather than $75 less than average machinery costs for their work on crops and livestock.

Chart 8.--Labor Cost as Related to the Rate Earned on Capital

Each sign (+) represents a farm as the farms are distributed from the left to the right of the chart according to the percent of average labor costs on similar farms and from the bottom to the top according to the rate earned on the total farm capital.



① = Average of all 193 farms.

② = Approximate average of 39 most provitable farms. They had 90 percent of normal labor cost. See Table 10, page 19.

③ = Approximate average of 39 least profitable farms. They had 106 percent of normal labor cost. See Table 10, page 19.

④ = Approximate average of 39 farms with lowest labor cost. They earned an average rate of 14.86 percent of capital. See Table 13, page 25.

⑤ = Approximate average of 39 farms with highest labor cost. They earned an average rate of 11.44 percent of capital. See Table 13, page 25.

Table 13.--Labor Costs as Related to the Rate Earned on Capital and Some Factors That Affect Earnings

Item	Your farm	Average of all 193 farms	39 farms with low labor costs	39 farms with high labor costs
Rate earned on investment.................	______%	13.75%	14.86%	11.44%
Labor and management earnings per operator	$______	$ 6584	$ 6741	$ 5262
Labor and management earnings per man.....	______	4027	5014	3209
Size of farm--total acres.................	______	271	263	257
Percent of land tillable..................	______	86.4	85.5	89.2
Percent of tillable land in legumes[a].....	______	19.7	21.6	18.3
Feed per acre--value......................	$______	$35.30	$37.84	$33.74
Value of crops on tillable land[b].........	$______	$10739	$10129	$10485
Average value on similar soil.............	______	10739	10164	10660
Percent of average value................	______	100	100	98
Returns from productive livestock.........	$______	$12488	$12822	$10912
Returns at average rate...................	______	12608	12977	11337
Percent of average returns..............	______	99	99	96
Labor cost per farm.......................	$______	$ 2788	$ 2011	$ 3382
Average cost for same work................	______	2855	2755	2716
Percent of average cost.................	______	98	73	125
Power and machinery cost per farm.........	$______	$ 1970	$ 1813	$ 2176
Average cost for same work[c]..............	______	2200	2091	2125
Percent of average cost.................	______	90	87	102

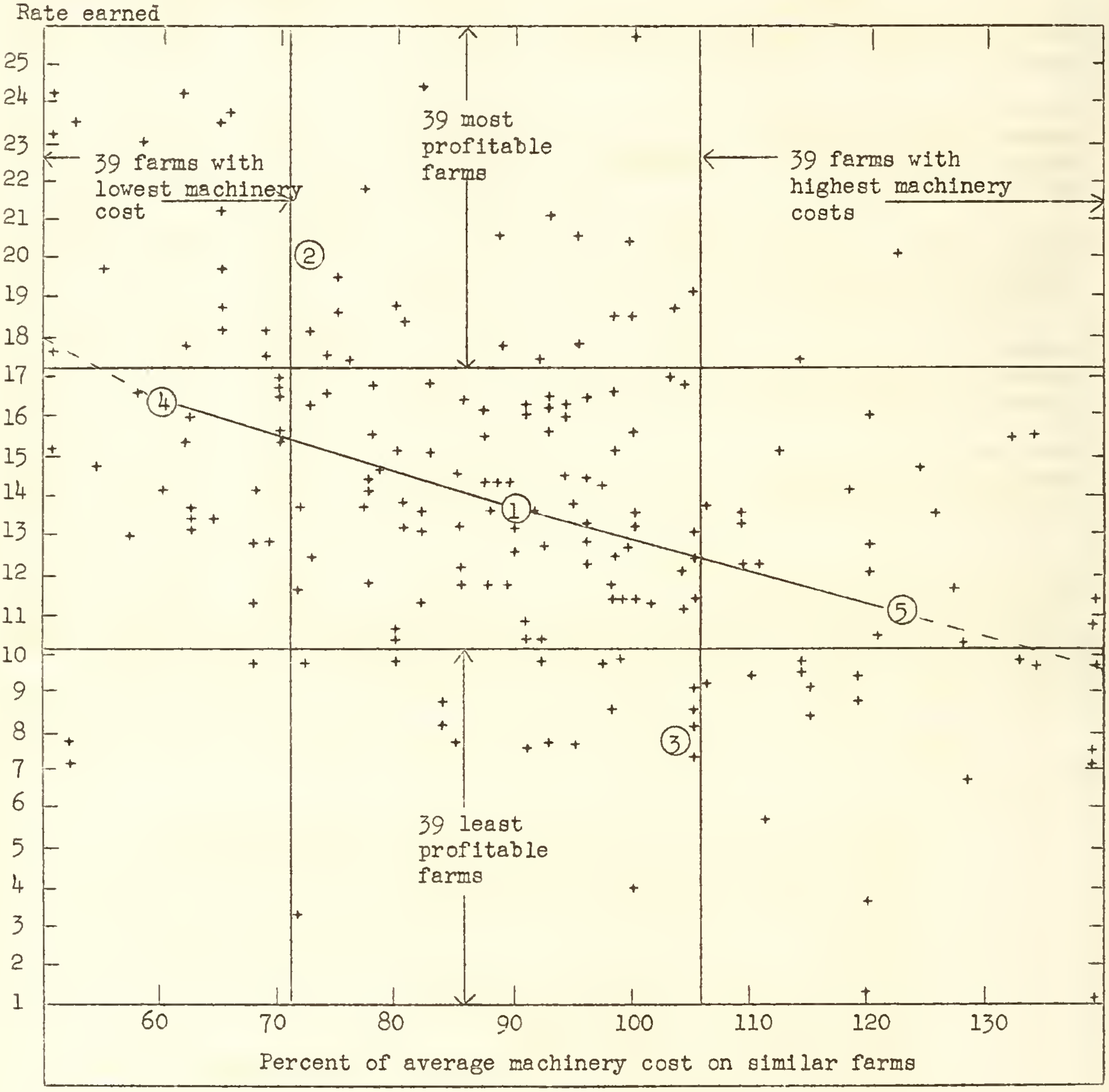
[a] This is the percent of tillable land left down in biennial and perennial legumes.
[b] This includes grain, corn for silage, hay, and pasture on tillable land.
[c] This is the average cost for farms that have little or no income from custom work.

Compared with the 39 farms with the highest labor costs, the 39 farms with the lowest labor costs for the amount of work done:

1. Earned $3.42 more per year for each $100 worth of capital.
2. Earned $1,479 more per operator for labor and management and $1,805 more per 12 months of all labor.
3. Were 6 acres larger with a smaller proportion of tillable land.
4. Had 21.6 percent rather than 18.3 percent of tillable land in legumes.
5. Fed $4.10 worth of feed more per acre.
6. Produced $35 less rather than $175 less than average value of crops from their tillable land.
7. Received $155 less rather than $425 less than average from their feed fed to livestock.
8. Had $744 less rather than $666 more than average labor costs for their work on crops and livestock.
9. Had $278 less rather than $51 more than average machinery costs for their work on crops and livestock.

Chart 9.--Machinery Cost as Related to the Rate Earned on Capital

Each sign (+) represents a farm as the farms are distributed from the left to the right of the chart according to the percent of the average machinery costs on similar farms and from the bottom to the top according to the rate earned on the total farm capital.



①= Average of all 193 farms.

②= Approximate average of 39 most profitable farms. They had 74 percent of normal machinery cost. See Table 10, page 19.

③= Approximate average of 39 least profitable farms. They had 104 percent of normal machinery cost. See Table 10, page 19.

④= Approximate average of 39 farms with lowest machinery cost. They earned an average rate of 16.40 percent of the total capital. See Table 14, page 27.

⑤= Approximate average of 39 farms with highest machinery cost. They earned an average rate of 11.03 percent of the total capital. See Table 14, page 27.

Table 14.--Machinery Costs as Related to the Rate Earned on Capital and Some Factors That Affect Earnings

Item	Your farm	Average of all 193 farms	39 farms with low machinery costs	39 farms with high machinery costs
Rate earned on investment.................	______%	13.75%	16.40%	11.03%
Labor and management earnings per operator	$______	$ 6584	$ 8512	$ 4799
Labor and management earnings per man.....	______	4027	5058	3133
Size of farm--total acres.................	______	271	284	253
Percent of land tillable..................	______	86.4	86.0	89.8
Percent of tillable land in legumes[a].....	______	19.7	21.2	17.4
Feed per acre--value......................	$______	$35.30	$38.06	$32.23
Value of crops on tillable land[b].........	$______	$10739	$11227	$10136
Average value on similar soil.............	______	10739	11069	10518
Percent of average value...............	______	100	101	96
Returns from productive livestock.........	$______	$12488	$14435	$10510
Returns at average rate...................	______	12608	14194	10955
Percent of average returns.............	______	99	102	96
Labor cost per farm.......................	$______	$ 2788	$ 2782	$ 2901
Average cost for same work................	______	2855	3104	2663
Percent of average cost................	______	98	90	109
Power and machinery cost per farm.........	$______	$ 1970	$ 1424	$ 2510
Average cost for same work[c]..............	______	2200	2380	2043
Percent of average cost................	______	90	60	123

[a] This is the percent of tillable land left down in biennial and perennial legumes.

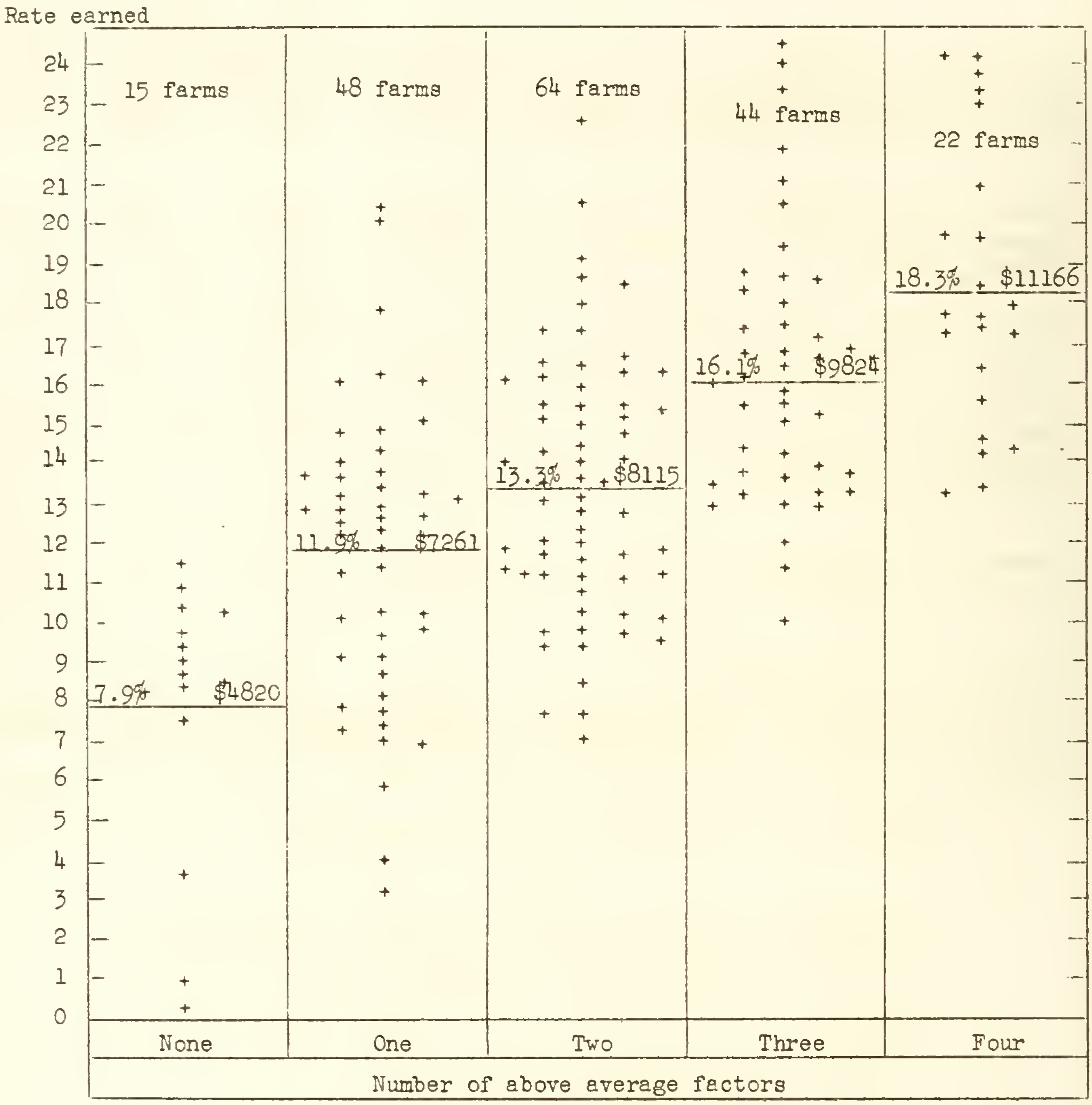
[b] This includes grain, corn for silage, hay, and pasture on tillable land.

[c] This is the average cost for farms that have little or no income from custom work.

Compared with the 39 farms with the highest machinery costs, the 39 farms with the lowest machinery costs for the amount of work done:

1. Earned $5.37 more per year for each $100 worth of capital.
2. Earned $3,713 more per operator for labor and management and $1,925 more per 12 months of all labor.
3. Were 31 acres larger with a smaller proportion of tillable land.
4. Had 21.2 percent rather than 17.4 percent of tillable land in legumes.
5. Fed $5.83 worth of feed more per acre.
6. Produced $158 more rather than $382 less than average value of crops from their tillable land.
7. Received $241 more rather than $445 less than average from their feed fed to livestock.
8. Had $222 less rather than $238 more than average labor costs for their work on crops and livestock.
9. Had $956 less rather than $467 more than average machinery costs for their work on crops and livestock.

Chart 10.--Number of Above-Average Factors as Related to the Rate Earned on the Total Farm Capital



The figures above the line across each column are the rate earned for the group of farms and the average net earnings per farm obtained by applying the rate earned of the group of farms to the average capital ($61,016) of all 193 farms. The four efficiency factors considered were value per tillable-acre of crops, livestock efficiency, labor costs, and machinery costs.

Crop production. In a livestock area the value of crop production per acre affects farm earnings more than does any other factor except livestock efficiency. The value of crop production per acre varies with the quality of land, the yield per acre, and the proportion of land kept in those crops that bring the highest returns per acre.

Crop yields differ more than many persons realize because of differences in the natural quality of land that often appears about the same on the surface. See Table 15. For this reason, each cooperator's grain yields are compared with those of other farms on which the improved land has about the same fertility rating.

The total value of all crops is much higher on the high rating than on the low rating land because of both the higher crop yields and the larger proportion of the tillable land that is planted to corn.

Table 15.--Crop Yields and Crop Values as Related to the Soil Productivity Rating of the Improved Land

Average soil rating	Yield of grain-bushels per acre								Value of all crops per acre of tillable land	
	Corn		Oats		Wheat		Soybeans			
	Your farm	Average	Your farm	Average	Your farm	Average	Your farm	Average	Your farm	Average
1.0		64.5		49.0		30.0		29.0		$49.00
1.5		64.5		51.0		30.0		29.0		49.25
2.0		67.0		55.0		30.0		27.0		51.00
2.5		63.5		53.0		30.0		25.5		47.25
3.0		61.0		51.5		30.0		24.0		46.00
3.5		58.0		46.0		28.0		22.0		42.25
4.0		54.0		41.0		25.0		20.5		38.25
4.5		50.0		37.5		21.5		18.5		36.00
5.0		47.5		35.5		18.0		17.0		35.00
5.5		46.0		35.0		15.0		17.0		35.00

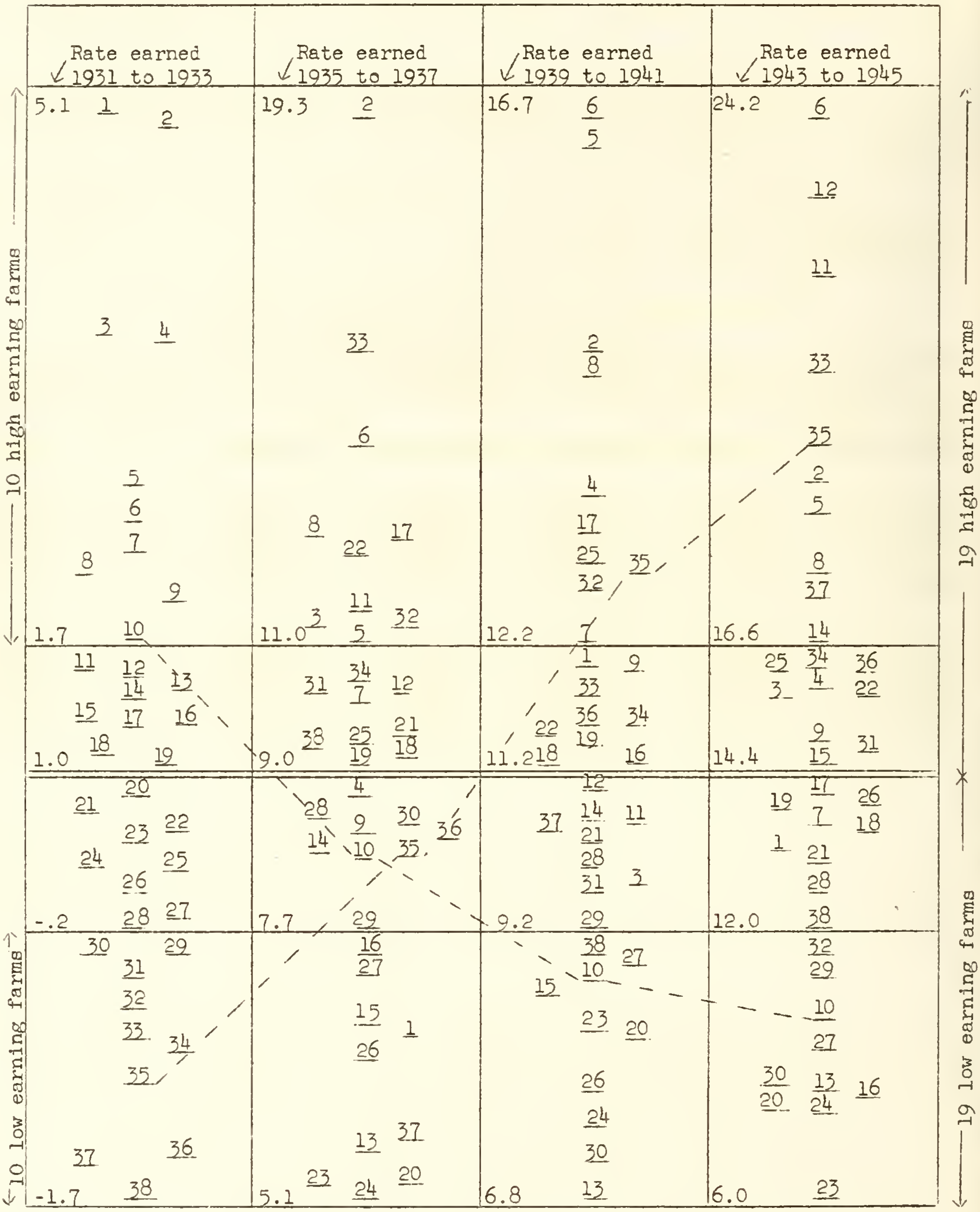
The three-year average prices used in calculating the value of all crops on tillable land were:

Corn	$1.04	per bushel
Oats	.69	per bushel
Wheat	1.48	per bushel
Soybeans	1.86	per bushel
Barley	1.07	per bushel
Rye	1.05	per bushel
Silage (corn)	6.79	per ton
All hay	16.38	per ton
Pasture	.10	per day per animal unit

Correction of error on page 12.

The decimal point should be removed from all three figures on the bottom line of Table 4; the figures should read 181, 177, and 179.

Chart 11.--Relative Net Earnings of 38 Farms During Four Three-Year Periods of 1931 to 1933; 1935 to 1937; 1939 to 1941; and 1943 to 1945[a]
All 38 farms were in Grundy, LaSalle, Marshall, and Putnam Counties



a/ The farms are numbered according to their rank in rate earned on the investment in 1931 to 1933. The farms are located from the bottom to the top of the chart according to the rate earned on the investment during each period of years.

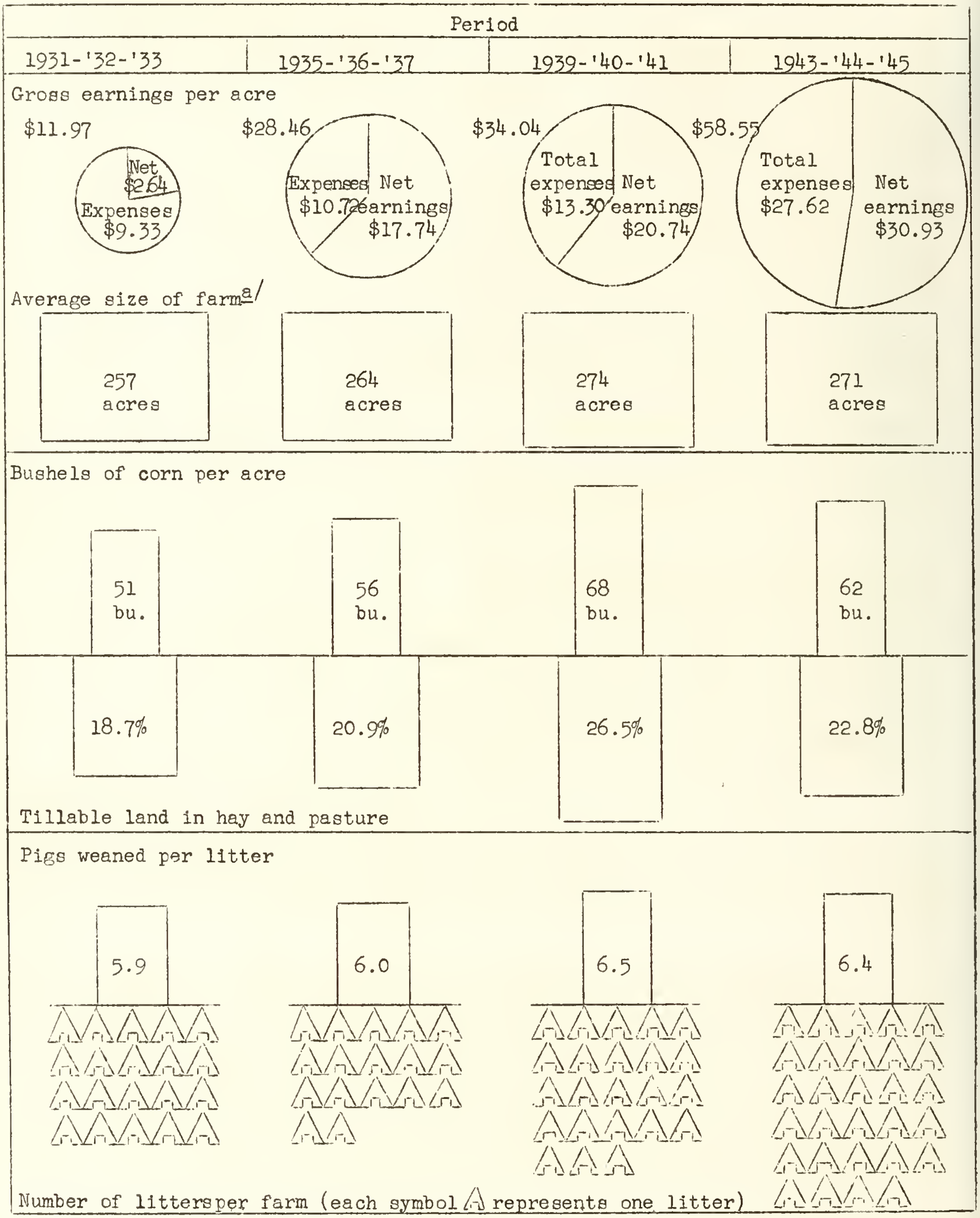
Table 16.--Changes in Efficiency Factors of 10 Farms That Increased Most and 10 Farms That Decreased Most in Earnings as Compared with All 38 Farms in the Service During the 15 Years of 1931 to 1945

Item and group of farms	Three-year averages			
	1931-2-3	1935-6-7	1939-0-1	1943-4-
Size of farm - total acres				
10 farms that increased most in earnings.....	262	269	286	313
10 farms that decreased most in earnings.....	286	289	297	298
Rate earned on total farm capital				
10 farms that increased most in earnings.....	-.17	10.44	11.65	18.61
10 farms that decreased most in earnings.....	2.16	7.18	9.52	11.21
Percent of total farm that was tillable				
10 farms that increased most in earnings.....	80.7	80.7	79.3	81.4
10 farms that decreased most in earnings.....	91.5	90.7	90.4	89.4
Percent of tillable land in grain and silage				
10 farms that increased most in earnings.....	79.6	75.4	66.7	74.3
10 farms that decreased most in earnings.....	79.2	69.9	65.9	75.2
Percent of tillable land in alfalfa and clovers				
10 farms that increased most in earnings.....	16.0	15.9	26.6	22.1
10 farms that decreased most in earnings.....	15.5	16.3	23.2	18.7
Value of feed fed per acre of farms				
10 farms that increased most in earnings.....	$12.53	$27.79	$20.44	$41.44
10 farms that decreased most in earnings.....	6.86	11.54	12.31	25.57
Average yield of all corn-bushels per acre				
10 farms that increased most in earnings.....	53.7	56.4	69.1	62.1
10 farms that decreased most in earnings.....	53.3	59.2	67.3	55.1
Percent of average returns per $100 worth of feed fed to all livestock in the area				
10 farms that increased most in earnings.....	96	104	103	113
10 farms that decreased most in earnings.....	115	96	102	100
Percent of average labor cost on similar farms				
10 farms that increased most in earnings.....	100	100	92	90
10 farms that decreased most in earnings.....	100	104	113	108
Percent of average mach'y cost on similar farms				
10 farms that increased most in earnings.....	107	93	99	79
10 farms that decreased most in earnings.....	100	99	106	96

Some farms increased, while other farms decreased, in relative earning power during the 15 years of 1931 to 1945. (See farms 35 and 10, Chart 11, page 30) Averag efficiency factors of the ten farms that increased most in earning power (Farms 33, 35, 37, 36, 34, 12, 38, 11, 31, 6) are compared in Table 16, with the same factors as the ten farms that decreased most in earning power. (Farms 1, 23, 13, 16, 10, 4, 20, 24, 3, 7)

The ten farms that increased most in earning power, earned about $5,000 per farm per year more in 1943, 1944, and 1945 than they would have if they had continued to hold the same position among all 38 farms that they held in 1931, 1932, and 1933. Their increased earning power was due largely to changes in the following factors: (1) increased livestock efficiency; (2) higher crop yields (higher crop yields were due in part to increased use of legumes and manure) and (3) lower labor and machinery costs. Increases in the sizes of farms helped to obtain greater machinery and labor efficiency. The 10 farmers that increased their earning power most during the 15 years were most successful in putting into effect those principles of good farm management named on the front cover of this report as "A Recipe for Good Farming."

Chart 12.--Averages of Farm Earnings, Size of Farm, and Production and Organization Factors for All Farms in the Illinois Valley Association During Four Three-Year Periods



a/ The farms averaged 86% tillable for each of the four periods.

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